

Good Morning



早晨好

Cyberinfrastructure and Grid Technology

A Platform for Revolutionizing Learning and Discovery

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<http://www.canscouncil.net/>

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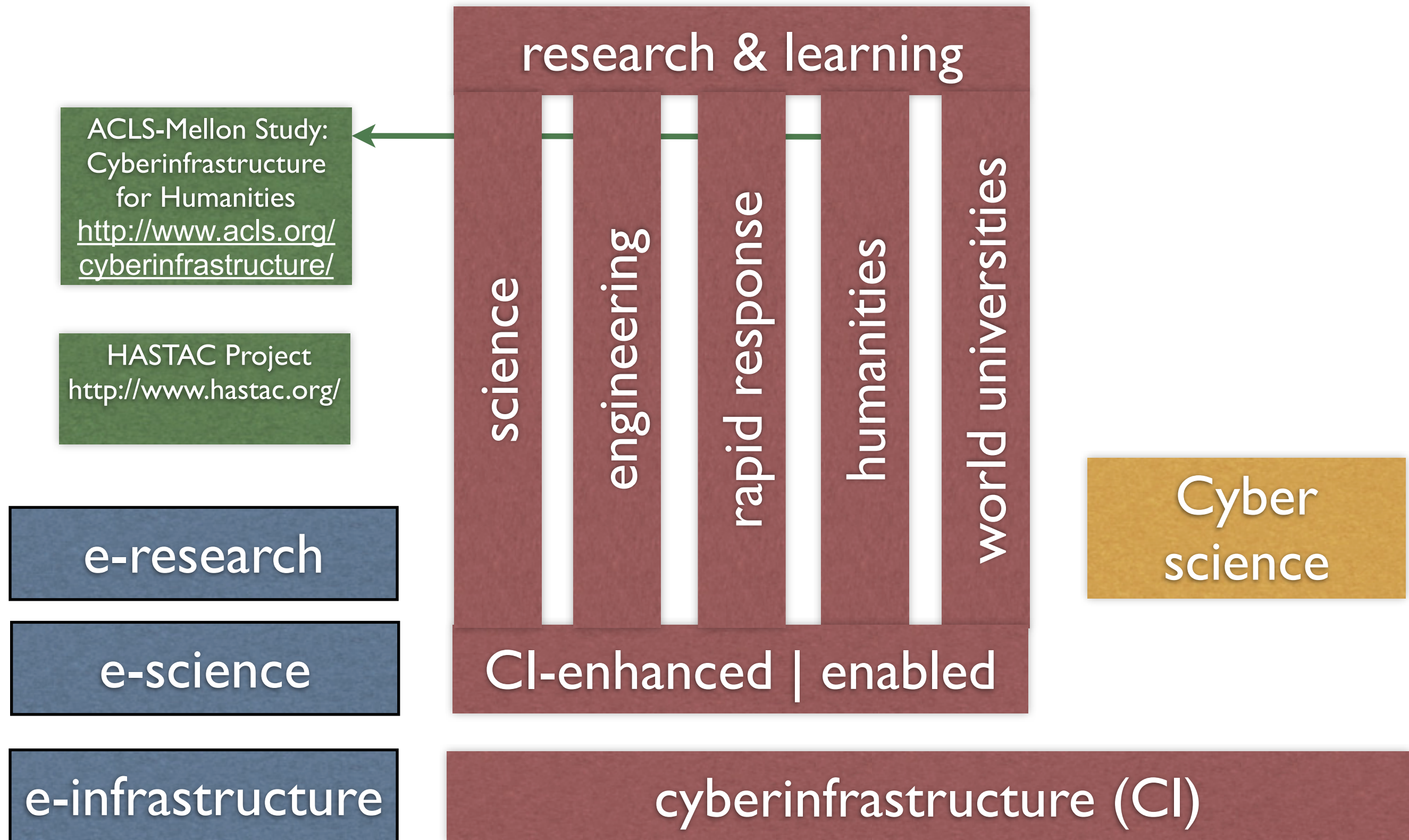


Office of
Cyberinfrastructure

D. E. Atkins



Current Nomenclature



Office of
Cyberinfrastructure

e = electronic | enhanced | enabled

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Dualities

cyberinfrastructure

enables

research &
development

CI is both an object and means for R&D

collaboration

enables

CI
environments

Multi-stakeholder collaboration required to create, provision, and apply CI; CI supports collaborations across time and distance (geographic, disciplinary, institutional)

learning | education

enables

CI
environments

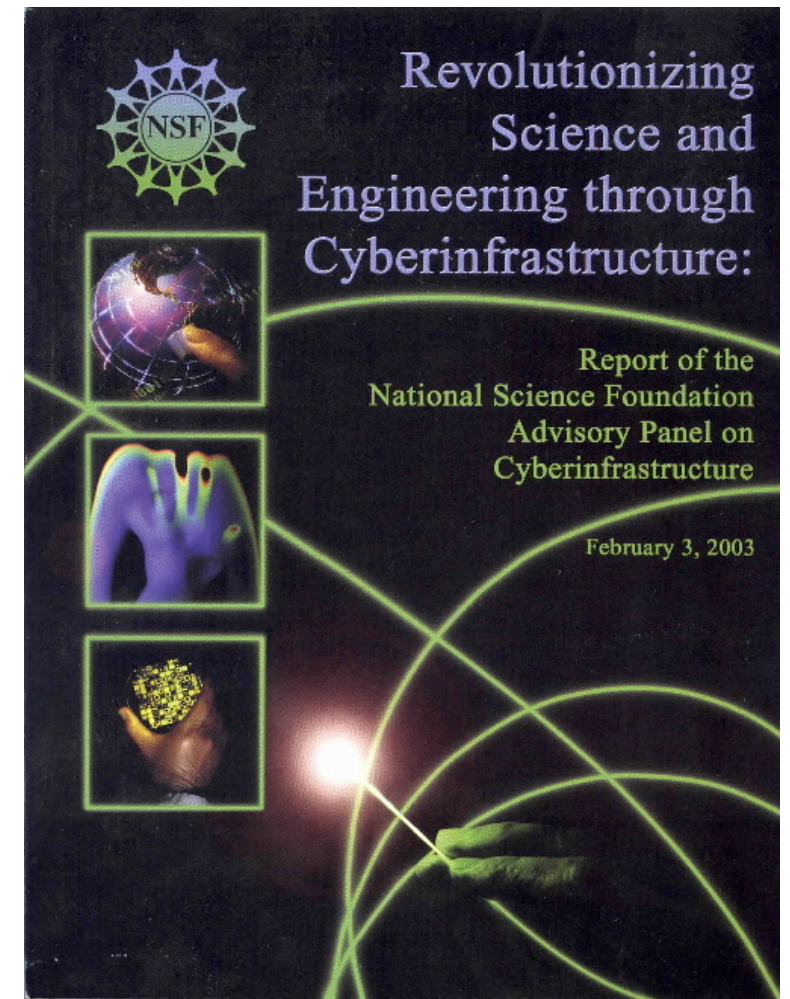
Learning and workforce development initiatives required to create and use CI; CI enables/enhances learning/education



NSF Blue Ribbon Advisory Panel on Cyberinfrastructure

“a new age has dawned in scientific and engineering research, pushed by continuing progress in computing, information, and communication technology, and pulled by the expanding complexity, scope, and scale of today’s challenges. The capacity of this technology has crossed thresholds that now make possible a comprehensive “cyberinfrastructure” on which to build new types of scientific and engineering knowledge environments and organizations and to pursue research in new ways and with increased efficacy.”

<http://www.nsf.gov/od/oci/reports/toc.jsp>



Daniel E. Atkins, Chair
University of Michigan

Kelvin K. Droegemeier
University of Oklahoma

Stuart I. Feldman
IBM

Hector Garcia-Molina
Stanford University

Michael L. Klein
University of Pennsylvania

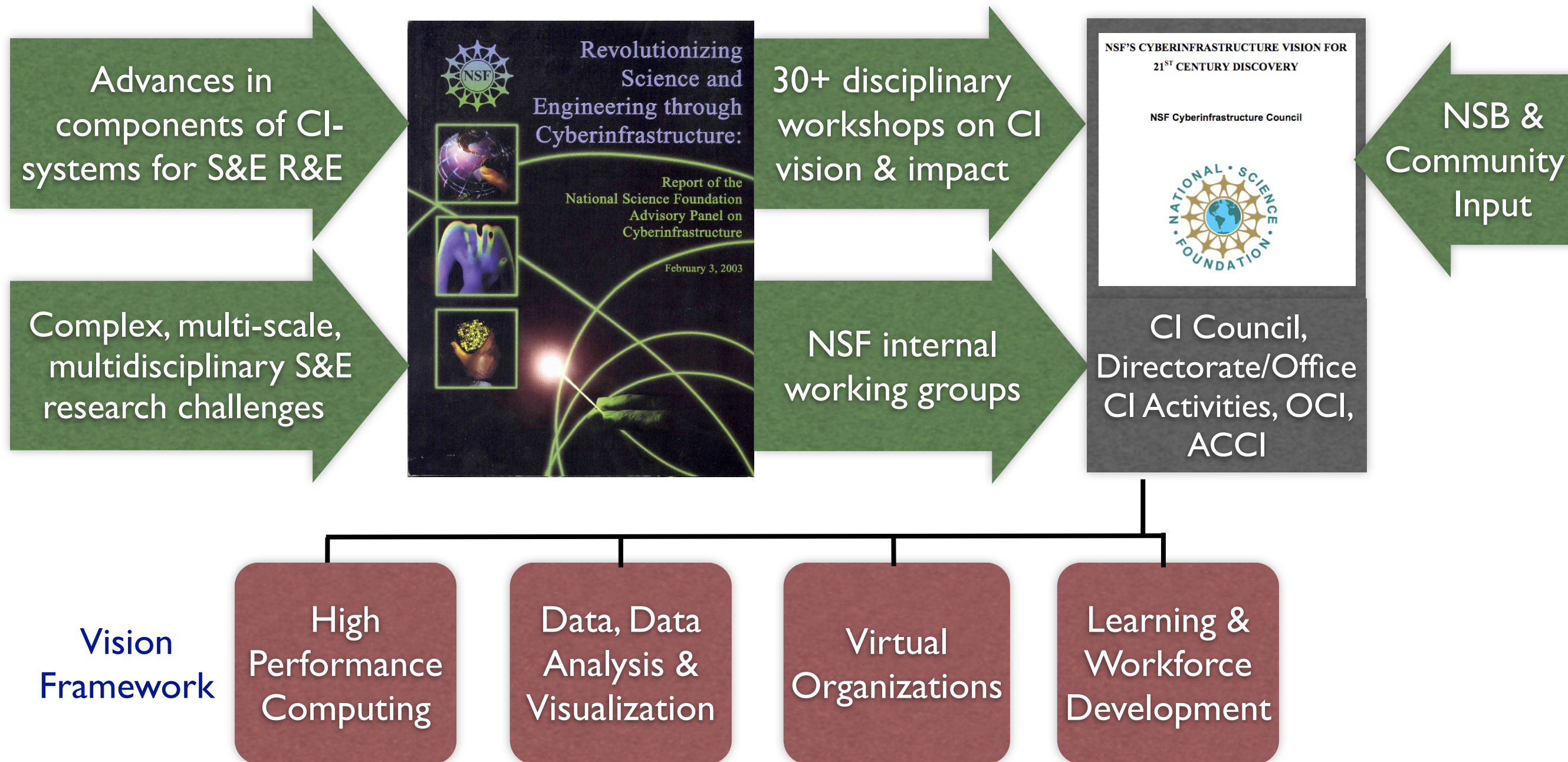
David G. Messerschmitt
University of California at Berkeley

Paul Messina
California Institute of Technology

Jeremiah P. Ostriker
Princeton University

Margaret H. Wright
New York University

Vision and Activities Based on Broad and Diverse Community Engagement



- All directorates and offices support cyberinfrastructure.
- Science-driven partnerships between creation, provisioning and use of CI
- Supports integrated research and education and broadened access and participation.



www.nsf.gov/oci/

HOME | FUNDING | AWARDS | DISCOVERIES | NEWS | PUBLICATIONS | STATISTICS | ABOUT | FastLane

NSF National Science Foundation
OFFICE OF
Cyberinfrastructure

SEARCH
NSF Web Site

OCI Home | OCI Funding | OCI Awards | OCI Discoveries | OCI News | About OCI

Cyberinfrastructure - stimulating
advances in 21st century
science and engineering

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[Advisory Committee](#)
[Budget Excerpt](#)

How to Prepare Your Proposal
[Grant Proposal Guide](#)
[Frequently Asked Questions](#)
[Other Types of Proposals](#)
[Regional Grants Conferences](#)

How to Manage Your Award
[Grant Policy Manual](#)
[Grant General Conditions](#)
[Cooperative Agreement Conditions](#)
[Special Conditions](#)
[Federal Demonstration Partnership](#)
[Policy Office Website](#)

Special Announcements

- **Career Opportunities - Dear Colleague Letter**
The Office of Cyberinfrastructure (OCI) announces a nationwide search to fill a number of Program Director positions. For more information, click on the link
http://www.nsf.gov/publications/vacancy.jsp?org=OCI&nsf_org=OCI
- **Petascale Acquisition Forum, Mar 24, '06**
NSF Invites Prospective Proposing Institutions and Vendors to a Discussion of Plans for a Petascale HPC Acquisition

As Indicated in the President's FY 2007 Budget Request, NSF is planning for the acquisition of a petascale high-performance computing (HPC) system. Subject to the availability of funds, NSF expects to begin funding the resulting multi-year acquisition project in FY07. The petascale HPC system to be acquired will permit science and engineering communities to address some of their most computationally challenging research needs.

HPC system vendors and potential resource provider organizations (organizations who, either separately or in collaboration with others, wish to propose to manage the development, deployment, and operation of a petascale system on behalf of the science and engineering research community) are invited to meet with each other and with NSF staff to discuss the time-line and strategy for this petascale system acquisition on Friday, March 24, 2006, from 9:00a.m. - 11:00a.m., at the National Science Foundation, 4201 Wilson Blvd., Arlington, VA, 22230. Those interested in attending this meeting should send email with their name and affiliation to HPC-Input@nsf.gov, no later than March, 20, 2006. Space is

Quick Links
[Reports and Workshops Relating to Cyberinfrastructure and Its Impacts](#)
Publications [See All](#)
[Report of Blue-Ribbon Advisory Panel on Cyberinfrastructure](#)
Other Site Features
[Special Reports](#)
[Research Overviews](#)
[Multimedia Gallery](#)
[Classroom Resources](#)
[NSF-Wide Investments](#)

Still looking for a few more Program
Officers to join the OCI Adventure Team.



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New NSF Strategic Plan



Includes many imperatives for innovation in provisioning and transformative application of cyberinfrastructure to discovery and learning.

Available at
<http://www.nsf.gov/pubs/2006/nsf0648/nsf0648.jsp>



Some Science Drivers

- Inherent **complexity and multi-scale** nature of today's frontier science challenges.
- Requirement for **multi-disciplinary, multi-investigator, multi-institutional** approach (often international).
- High **data intensity** from simulations, digital instruments, sensor nets, observatories.
- Increased value of data and demand for data **curation & preservation** of access.
- Exploiting infrastructure **sharing** to achieve better stewardship of research funding.
- Strategic need for **engaging more students** in high quality, authentic science and engineering education.





NSF CI FY07 Budget Request

Total of \$600M in CI Funding with \$182M in OCI

Cyberinfrastructure Funding

(Dollars in Millions)

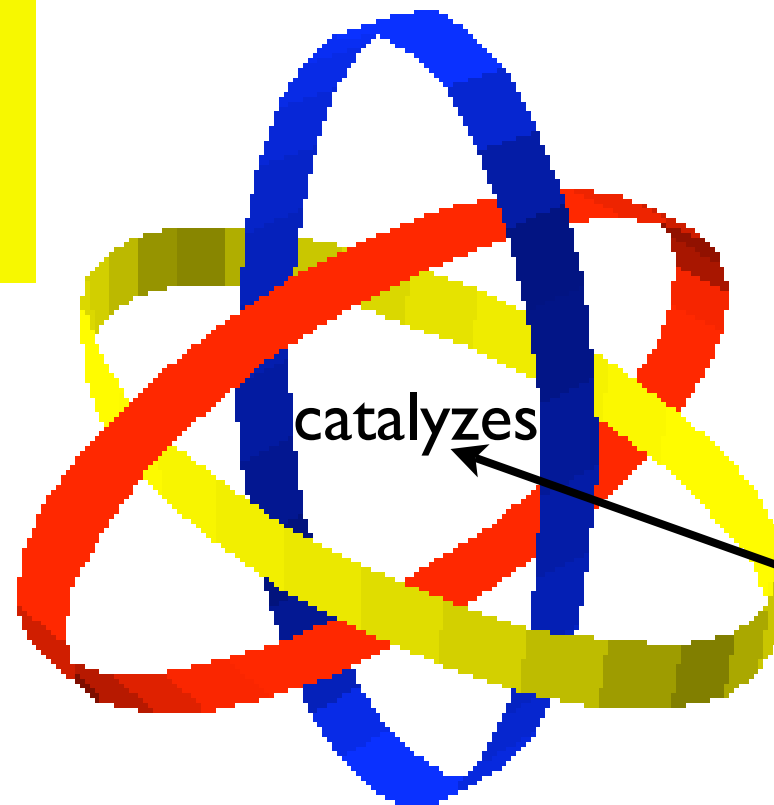
	FY 2005 Actuals	FY 2006 Current Plan	FY 2007 Request	Change over FY 2006	
				Amount	Percent
Biological Sciences	\$77.00	\$84.00	\$90.50	\$6.50	7.7%
Computer and Information Science and Engineering	45.32	63.00	68.00	5.00	7.9%
Engineering	52.00	52.00	54.00	2.00	3.8%
Geosciences	71.35	71.35	75.00	3.65	5.1%
Mathematical and Physical Sciences	56.52	59.30	63.56	4.26	7.2%
Social, Behavioral and Economic Sciences	20.39	20.54	20.54	-	-
Office of Cyberinfrastructure	123.28	127.12	182.42	55.30	43.5%
Office of International Science and Engineering	0.22	1.00	1.05	0.05	5.0%
Office of Polar Programs	25.38	26.24	26.24	-	-
Subtotal, Research and Related Activities	471.47	504.55	581.31	76.76	15.2%
Education and Human Resources	20.27	15.02	15.52	0.50	3.3%
Total, Cyberinfrastructure Funding	\$491.74	\$519.57	\$596.83	\$77.26	14.9%

Totals may not add due to rounding.

Achieving the NSF CI (e-science) Vision requires synergy between 3 types of activities

**Transformative
Application** - to
enhance discovery &
learning

Borromean Ring: The three
rings taken together are
inseparable, but remove any
one ring and the other two fall
apart. See [www.liv.ac.uk/
~spm02/rings/](http://www.liv.ac.uk/~spm02/rings/)



Provisioning -
Creation, deployment
and operation of
advanced CI

provides shared
and connecting CI

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R&D to enhance technical and *social*
effectiveness of future CI
environments



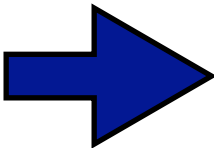
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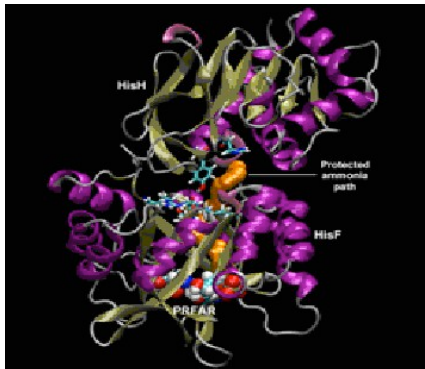
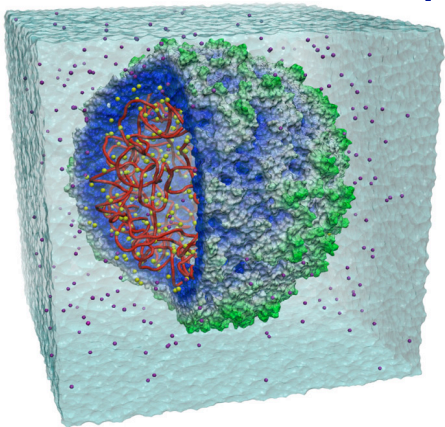


High Performance Computing

increasingly important tool for understanding

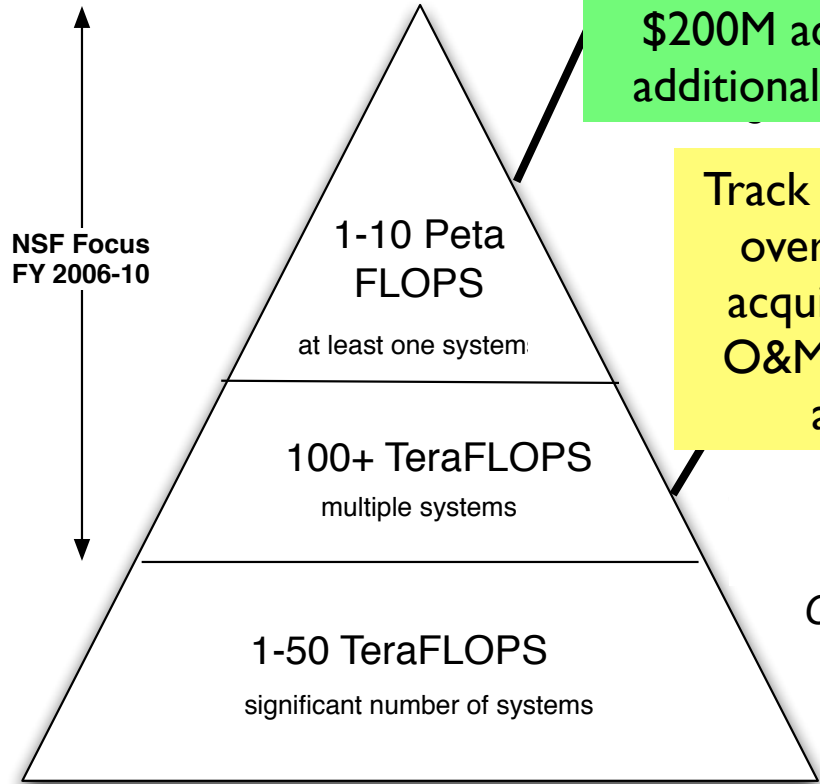


Life



Satellite tobacco mosaic virus, P. Freddolino et al.

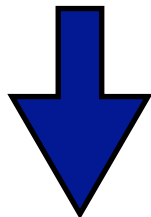
Aldehyde dehydrogenase, T. Wymore and S. Brown



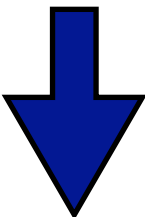
Track 1: One solicitation funded over 4 years: \$200M acquisition + additional O&M cost.

Track 2: Four solicitations over 4 years: \$30M/yr acquisition + additional O&M cost. First track 1 approved 8-07

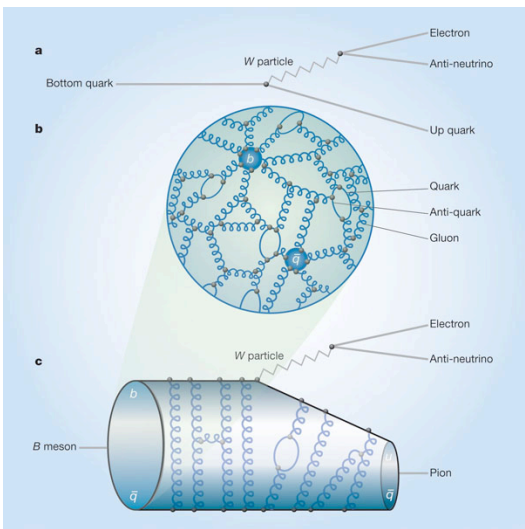
Campus Level



Matter

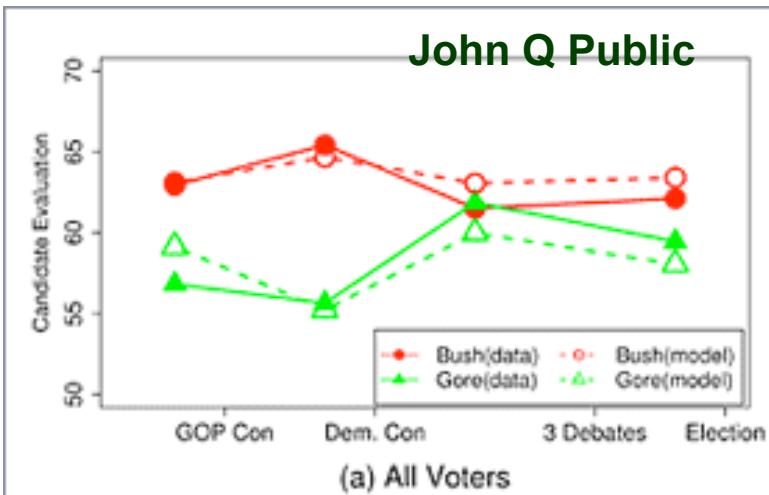
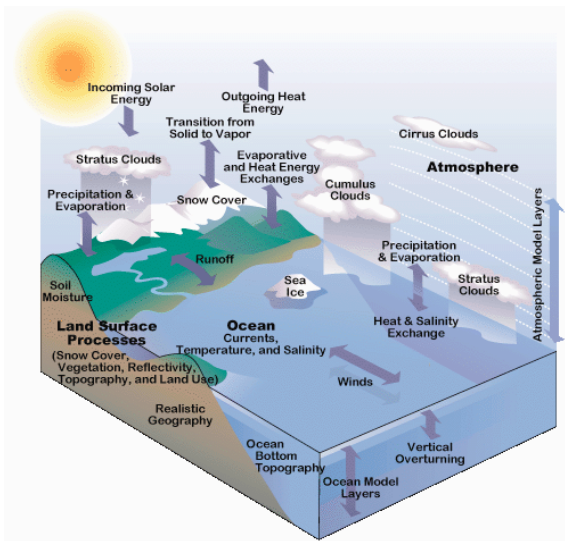
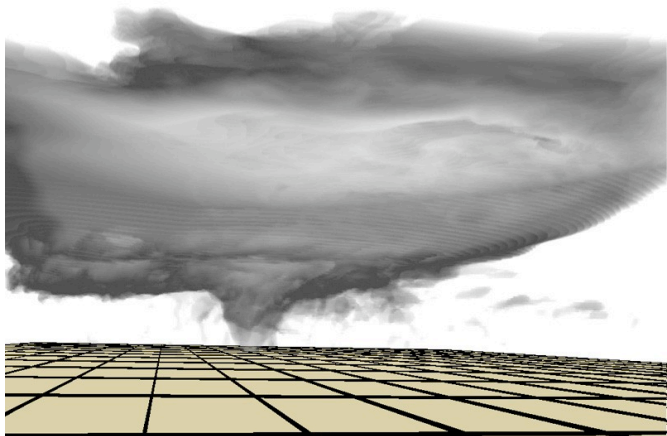
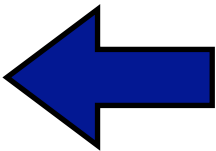


Society



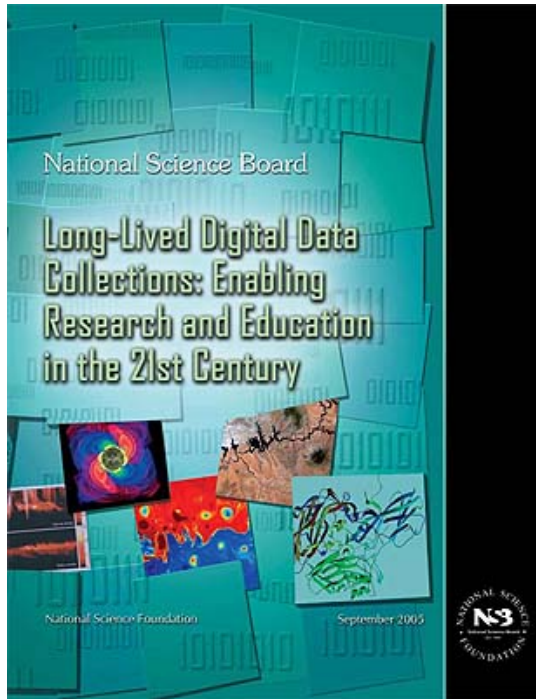
I. Shipsey

The Environment

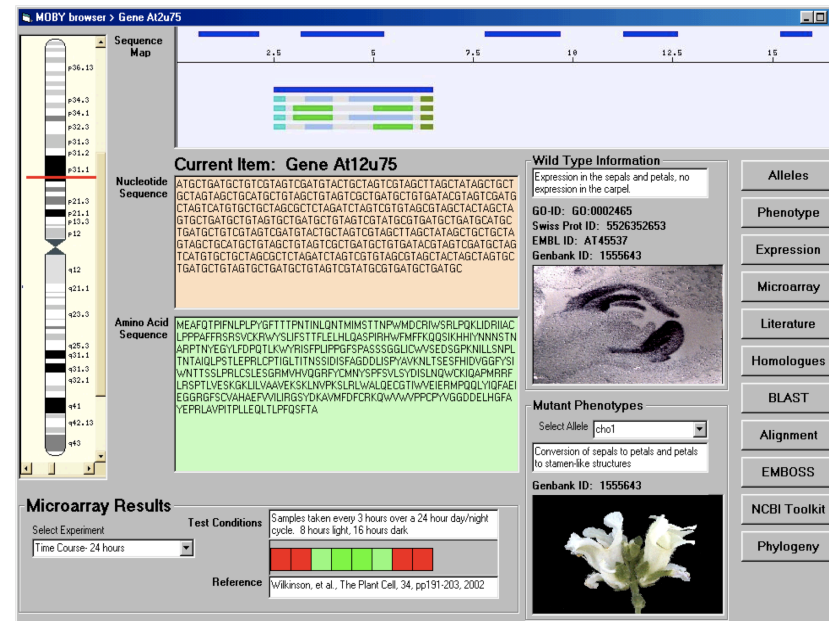
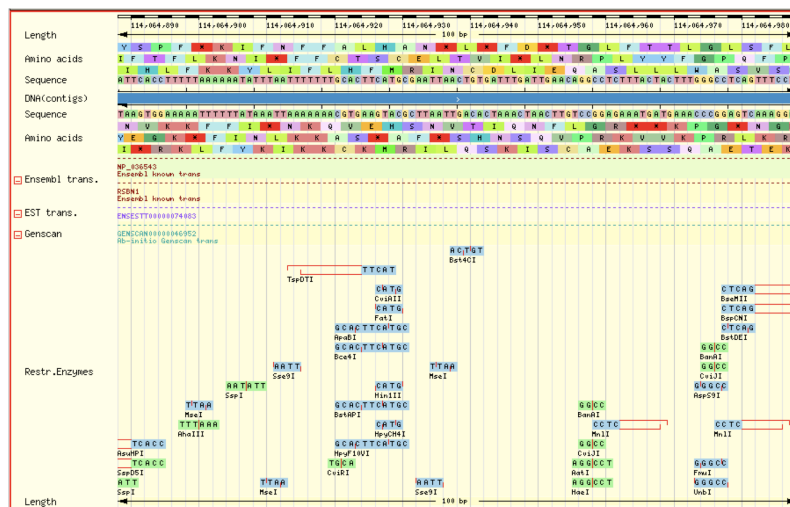


S.-Y. Kim, M. Lodge, C. Taber.

Data, Data Analysis & Visualization



- Challenges: **increased scale, heterogeneity, and re-use value** of digital scientific information and data. Inadequate digital preservation strategy of long-lived data.
- Taking initial steps to **catalyze the development** of a federated, global system of science and engineering data collections that is open, extensible, evolvable, (and appropriately curated and long-lived.)
- Complemented by a **new generation of tools** and services to facilitate data mining, integration, analysis, visualization essential to transforming data into knowledge.
- NSF Leadership for OSTP/Interagency Working Group on Digital Data

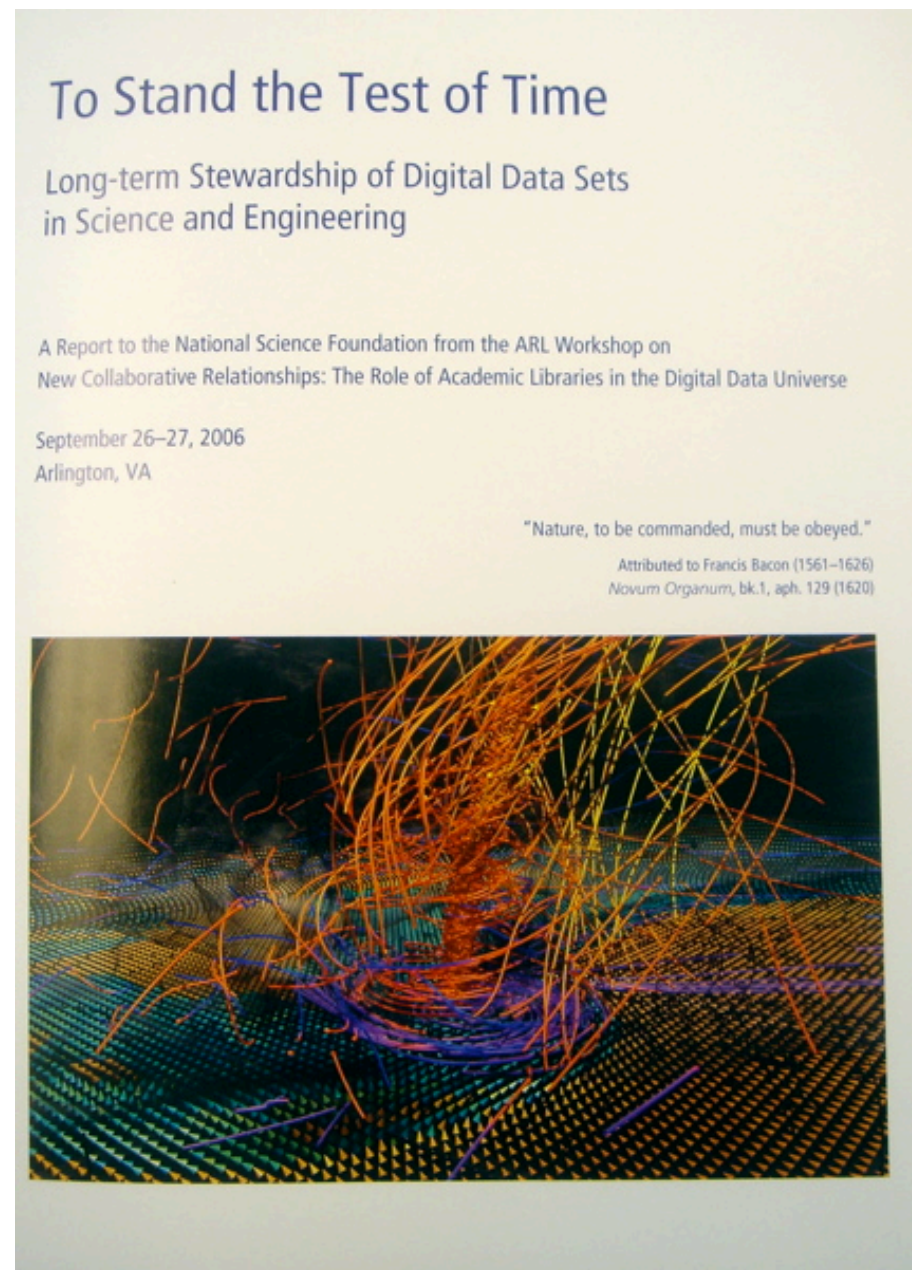


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New Report: *To Stand the Test of Time*



Available online at <http://www.arl.org/info/events/digdatarpt.pdf>

Lead NSF Program Officer for Data Initiatives, Chris Greer is at this meeting.



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Virtual Organizations



NVO



LEAD



iVDgL



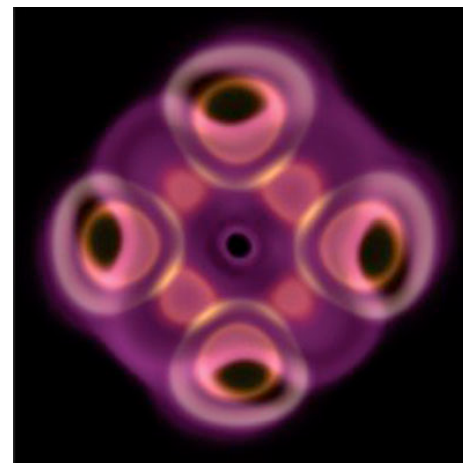
TeraGrid



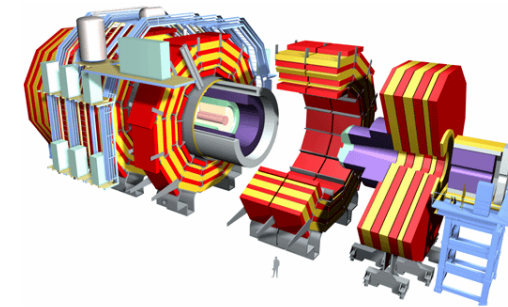
Open Science Grid



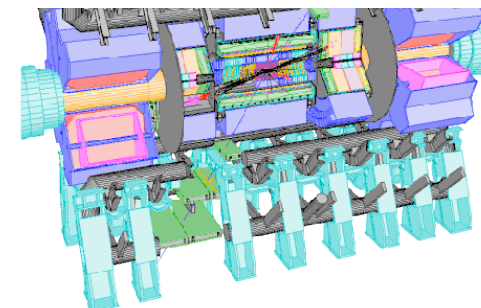
NEES



NanoHub



CMS



ATLAS

- To catalyze the development, implementation and evolution of a national cyberinfrastructure that integrates both physical and cyberinfrastructure assets and services.
- To promote and support the establishment of world-class VOs that are secure, efficient, reliable, accessible, usable, pervasive, persistent and interoperable, and that are able to exploit the full range of research and education tools available at any given time
- To support the development of common cyberinfrastructure resources, services, and tools that enable the effective, efficient creation and operation of end-to-end cyberinfrastructure systems for and across all science and engineering fields, nationally and internationally.

Instances of Virtual Organizations (VOs)

People*

People*

People*

Interfaces for interaction, workflow, visualization and collaboration for distributed teams in domain/project specific and potentially functionally-complete VOs.

Mechanisms for flexible secure, coordinated resource/services sharing among dynamic collections of individuals, institutions, and resources (the Grid or service layer problem)

Distributed, heterogeneous services for:

Computation

Data,
information
management

Sensing,
observation,
activation in
the world

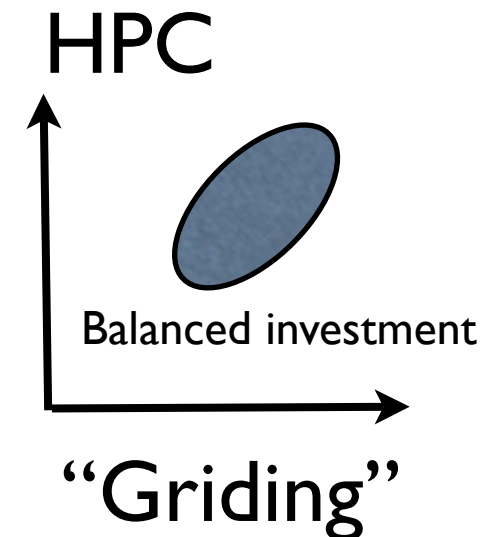
Alternate Names for Instances of VOs:

- Co-laboratory
- Collaboratory
- Grid (community)
- Network
- Portal
- Gateway
- Hub
- Virtual Research Environment (VRE)
- Cyberinfrastructure Collaborative
- Other?



Some Attributes of Grid-enabled VOs

- Technical performance level of resource components: computer, data pipes, storage capacity.
- Extent, diversity and functional completeness of shared resources.
- Extent of reuse of components from elsewhere.
- Extent of interoperability with other VOs
- The model for sustainability and evolution
- Extent of support for multiple outcomes: research, educational (multiple levels), societal engagement, rapid response



The Grid Movement



EMPLOYMENT SITEMAP CONTACT

ABOUT USER INFO NEWS



Research Briefs
Seismic Modeling and Oil Reservoir Simulations with TeraGrid
[see more Research Briefs](#)

Search TeraGrid

For Allocated Users

 User Portal

Programs

Science Gateways

The Science Gateways program is designed to enable entire communities of users with a common scientific goal to use the TeraGrid through a common interface.

[More on Science Gateways](#)

ASTA

The Advanced Support for TeraGrid Applications (ASTA) Program aims to help ensure that the resources of TeraGrid are optimally utilized for important scientific discoveries and technological innovation.

TeraGrid Related Education Resources & Opportunities

TeraGrid offer a variety of workshops, institutes, seminars and on-line learning resources to engage the community in making effective use of TeraGrid resources. A list of these learning opportunities across all of the Resource Provider sites is posted on the Education, Outreach and Training web pages at <http://www.teragrid.org/eot/workshops.php>

We would like to bring your attention to the following workshops:

October 16-17, 2006: Introduction to & Optimization for SDSC Systems

October 29, 2006: Remote/Collaborative TeraScale Visualization on the TeraGrid

TeraGrid is Voted GRIDtoday Top Research Grid

News

10/03/2006: [Pennsylvania House of Representatives Recognizes PSC's 20th Anniversary](#)

09/28/2006: [Texas Advanced Computing Center receives \\$59 million high-performance computing award from National Science Foundation](#)

09/22/2006: [Call for Papers - The 8th LCI International Conference on High-Performance Cluster Computing](#)

09/20/2006: [RENCI Biportal Enhanced with First Workflow](#)

09/18/2006: [Katrina: After the Storm - Civic Engagement Through Arts, Humanities and Technology - September 28-30, 2006](#)

09/18/2006: [Call For Participation - What To Do With A Million Books: Chicago](#)



- Home
- About the OSG
- Science on the OSG
- Getting Started
- News and Events
- Contacts
- OSG at Work

Tools for Collaborators

- OSG at Work
- Virtual Data Toolkit
- Document Database
- Logos and Templates
- Monitoring
- Security
- Support

Search The Site:

Search [OSG at Work](#):

Science on the Open Science Grid



The ATLAS transition radiation tracker (TRT) barrel detector. Courtesy of CERN

Simulating Supersymmetry with ATLAS

One of the discoveries eagerly anticipated by particle physicists working on the world's next particle collider is that of supersymmetry, a theoretical lost symmetry of nature. Physicist Sanjay Padhi from the University of Wisconsin-Madison has used Open Science Grid resources to show that there is a good possibility of discovering supersymmetry in the first few months of operation of the new collider, if the new symmetry exists in nature.

[Read more...](#)

OSG NEWS

- Open Science Grid Receives \$30 Million Award to Empower Scientific Collaboration and Computation
- There will be a joint EGEE/OSG session on Security at the [EGEE Conference](#), September 25-29, 2006.
- September 11, 2006 article in GRIDtoday: [Running an Effective Distributed Facility](#).
- Press Release, September 7, 2006: [DOE Announces \\$60 Million in Projects to Accelerate Scientific Discovery through Advanced Computing](#).

View Live Grid Status



Enabling Grids for E-science

- EGEE PROJECT
- EGEE & INDUSTRY
- USERS AND EGEE
- EGEE EVENTS
- WORLDWIDE GRID
- NEWSROOM

Home

[Register as a Community Member](#) | [Log-in](#) | [RSS](#)

Welcome to EGEE (Enabling Grids for E-science).

The Enabling Grids for E-science project brings together scientists and engineers from more than 90 institutions in 32 countries world-wide to provide a seamless Grid infrastructure for e-Science that is available to scientists 24 hours-a-day. Conceived from the start as a four-year project, the second two-year phase started on 1 April 2006, and is funded by the European Commission.

Expanding from originally two scientific fields, high energy physics and life sciences, EGEE now integrates applications from many other scientific fields, ranging from geology to computational chemistry. Generally, the EGEE Grid infrastructure is ideal for any scientific research especially where the time and resources needed for running the applications are considered impractical when using traditional IT infrastructures.

Latest News

First EELA Bulletin - EELA News - Year 1, Issue 1 now available

[... Read more](#)

Try the GRID

[Click here](#)

Become a User

Want to become a user of the EGEE Grid? [Click here](#)

Collaborating Projects

If your project is related to EGEE, please register it [here](#)

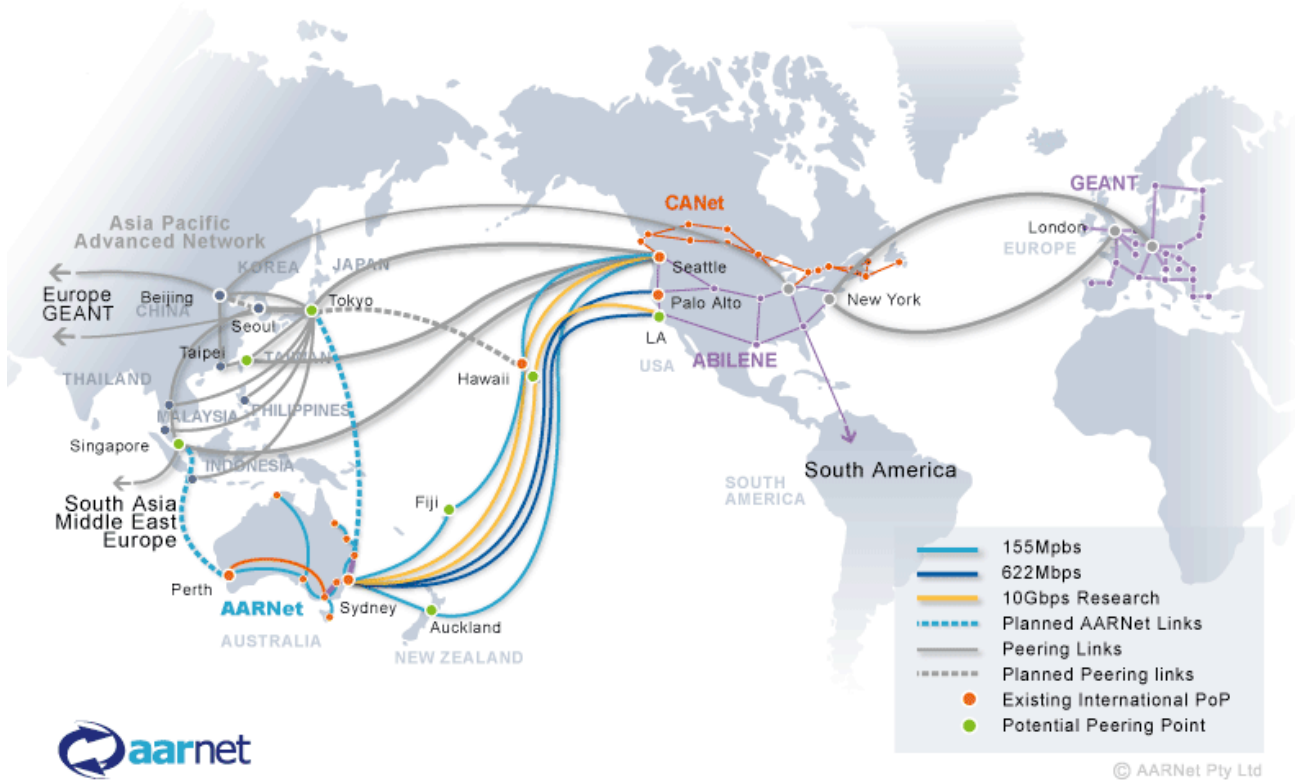
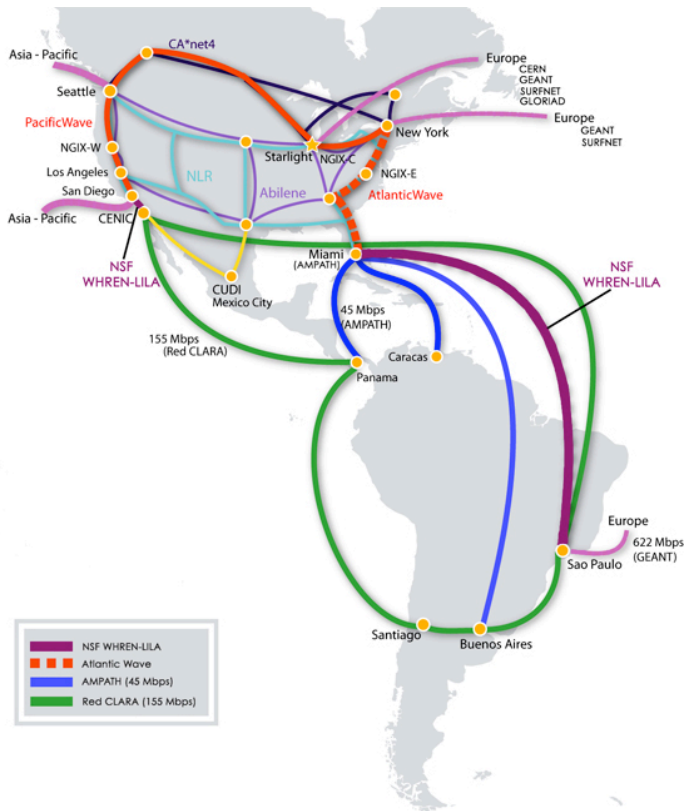
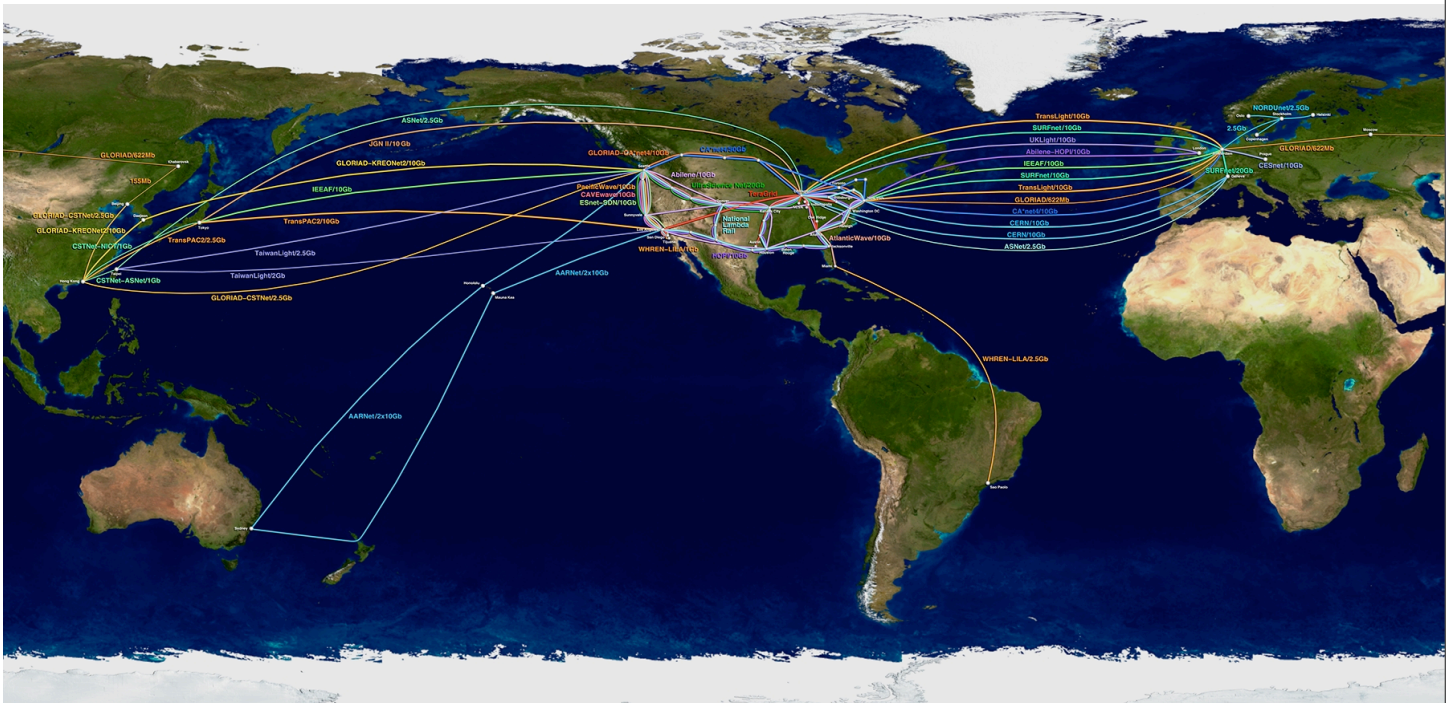
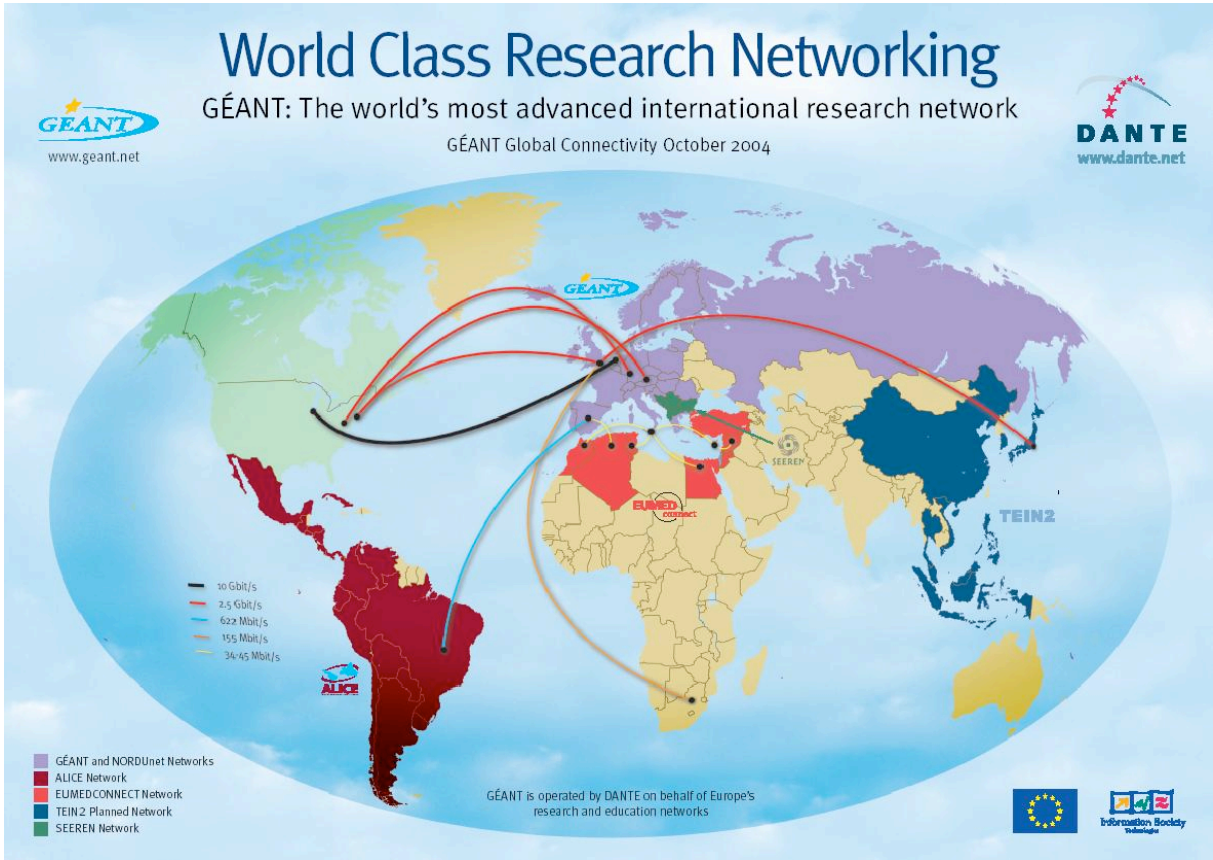


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VO-substrate: International R&E Networking

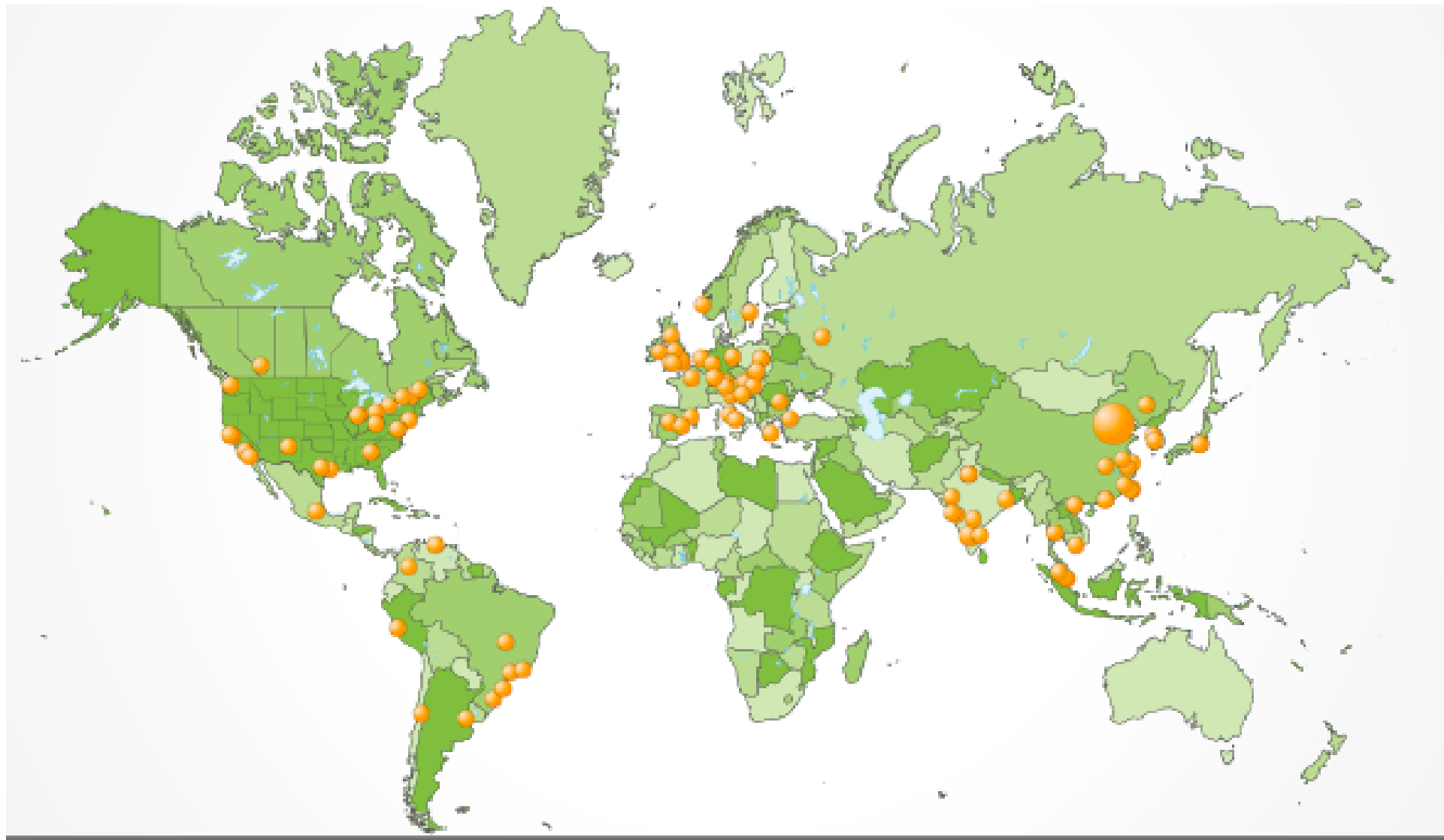


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Globus.org Page View, Nov. 2006



globus.org pageviews during November 2006
196,000 in total, each dot is a location with $> \sim 100$



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Globus.org Downloads, Nov. 2006



globus.org downloads of software during November
2006 196,000 in total, each dot is a location with >
~100

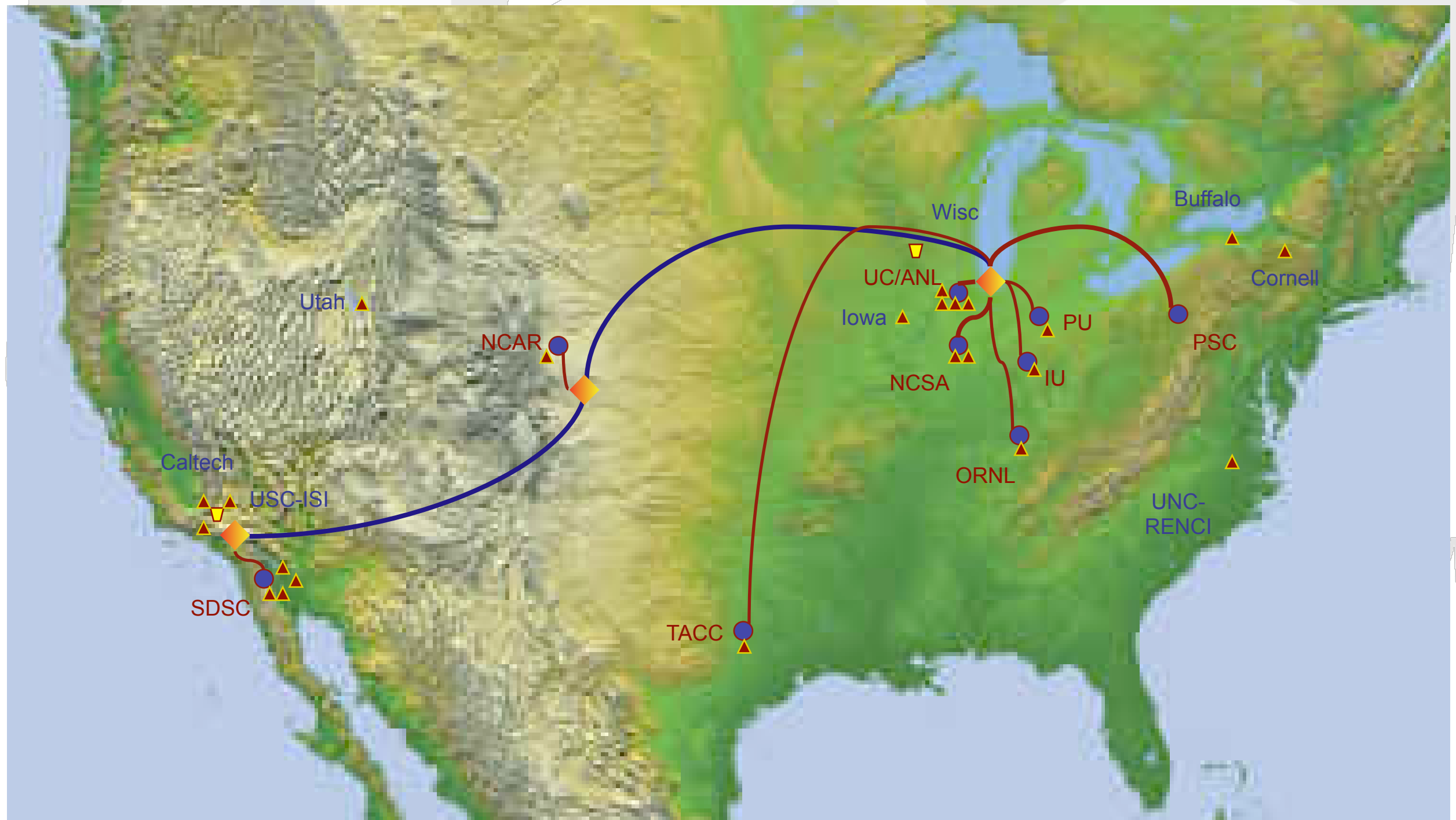


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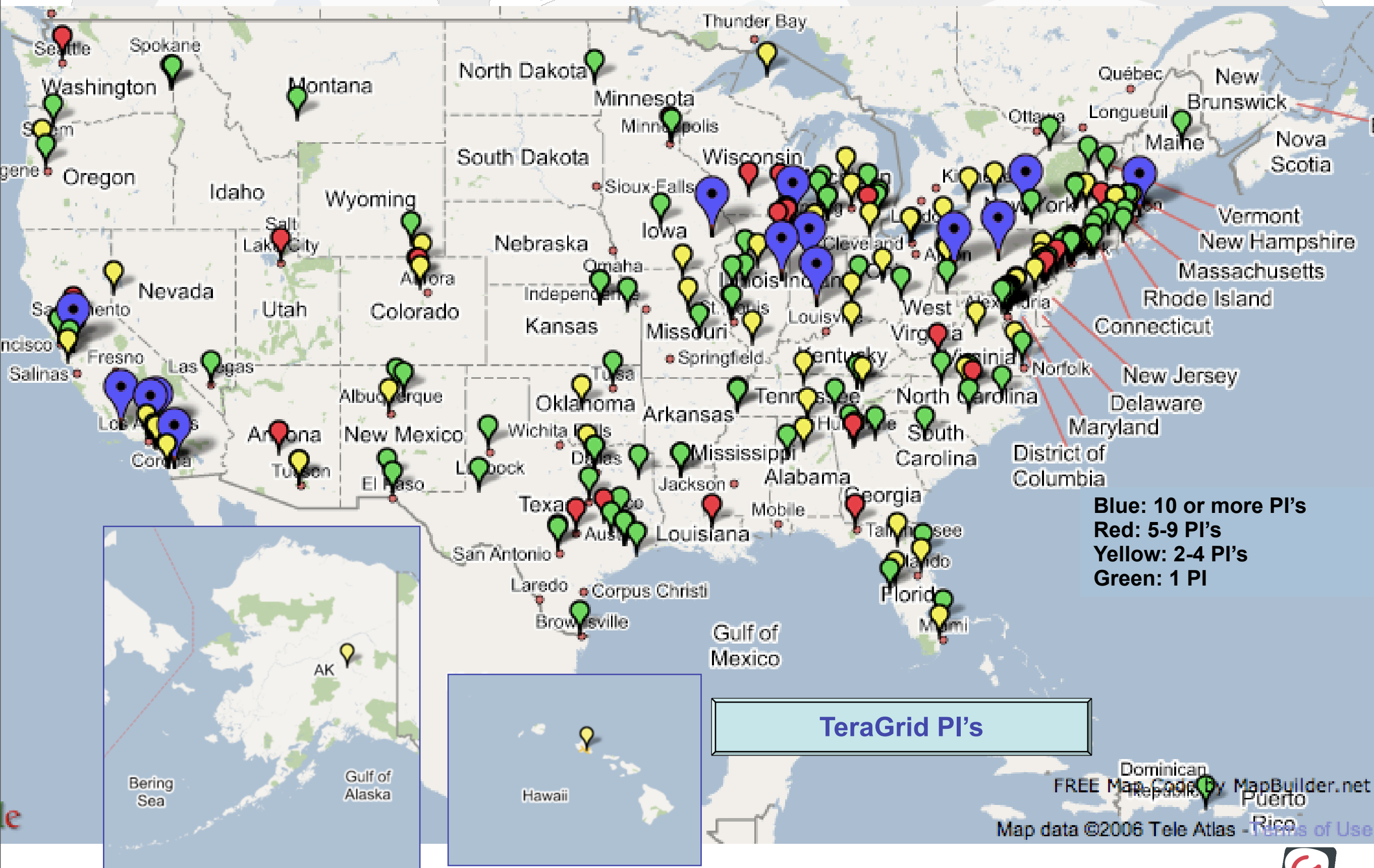


TeraGrid: Integrating NSF Cyberinfrastructure

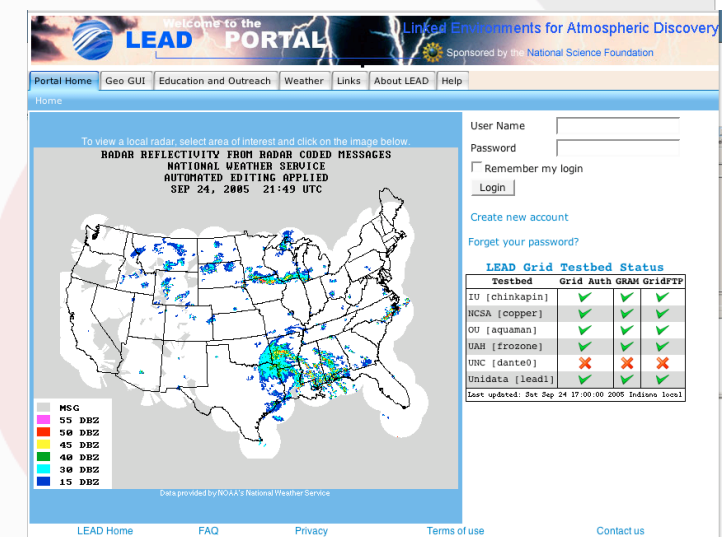
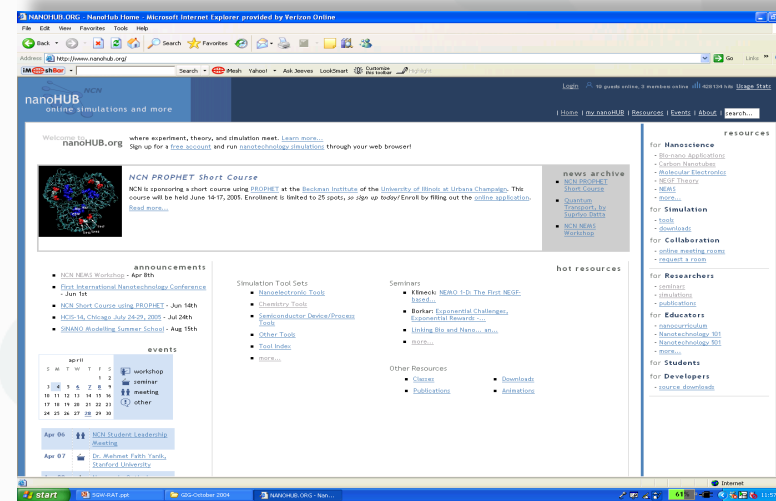
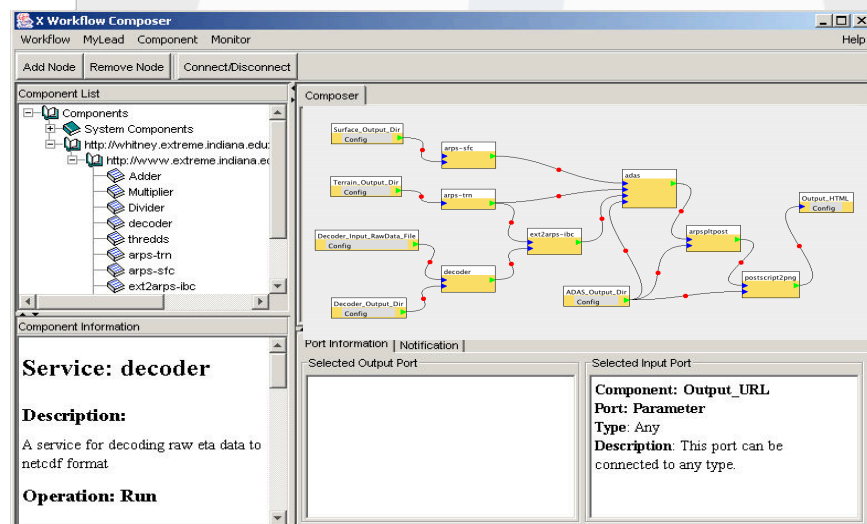


TeraGrid is a facility that integrates computational, information, and analysis resources at the San Diego Supercomputer Center, the Texas Advanced Computing Center, the University of Chicago / Argonne National Laboratory, the National Center for Supercomputing Applications, Purdue University, Indiana University, Oak Ridge National Laboratory, the Pittsburgh Supercomputing Center, and the National Center for Atmospheric Research.

TeraGrid PI's By Institution as of May 2006



TeraGrid Science Gateways Initiative: Community Interface to Grids



Grid-X

TeraGrid

Grid-Y

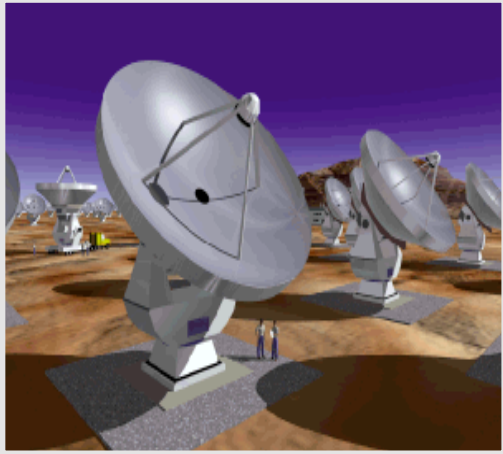
- Common Web Portal or application interfaces (database access, computation, workflow, etc).
- “Back-End” use of TeraGrid computation, information management, visualization, or other services.
- Standard approaches so that science gateways may readily access resources in any cooperating Grid without technical modification.

TeraGrid Science Gateway Partner Sites

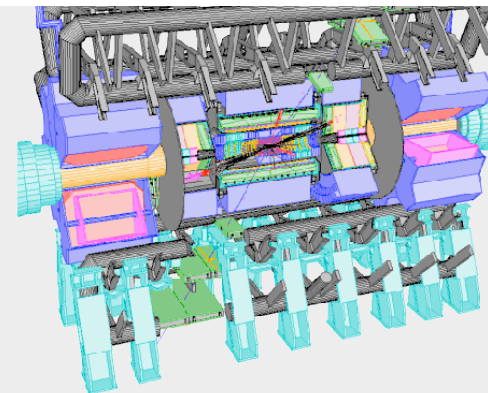
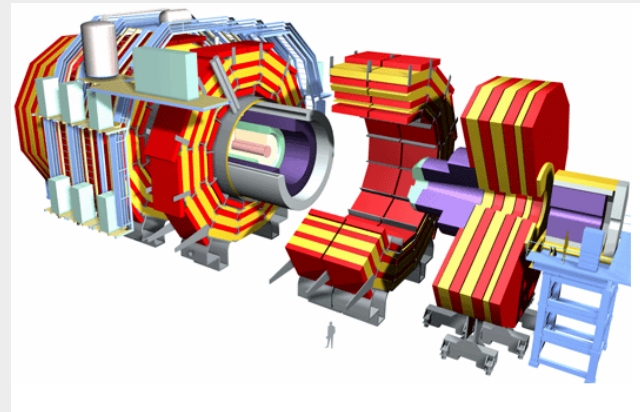


21 Science Gateway Partners (and growing) - Over 100 partner Institutions

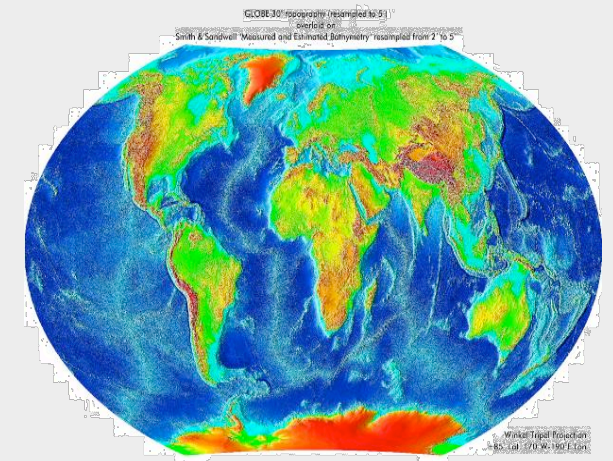
CI/VO Enabled Science



NVO and ALMA



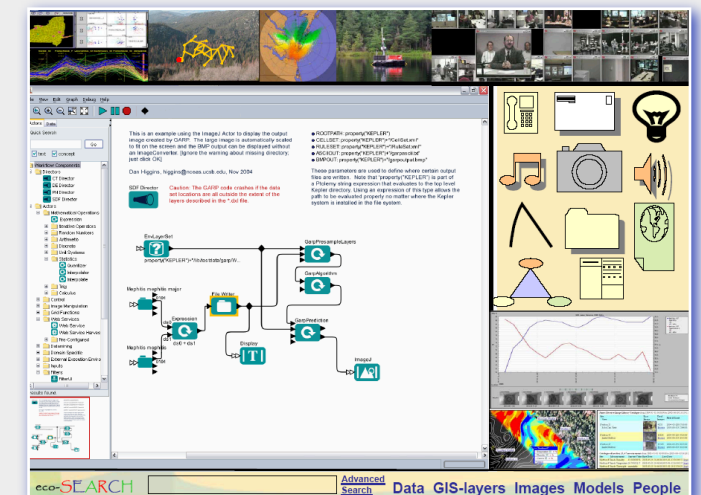
ATLAS and CMS



Climate Change



LIGO



NEON

The number of international-scale projects is growing rapidly!

Virtual Organizations offer additional modes of interaction between People, Information, and Facilities

		Time	
		Same	Different
		(synchronous)	(asynchronous)
Geographic Place	Same	ST-SP P: Physical mtgs I: Print-on-paper books, journals F: Physical labs, studios, shops	DT-SP P: Shared notebook I: Library reserves F: Time-shared physical labs, ...
	Different	ST-DP P: AV conference I: Web search F: Online instruments	DT-DP P: Email I: Knowbots F: Autonomous observatories

Physical +
Virtual,
Not Physical
vs. Virtual

P: people, **I:** information, **F:** facilities, instruments

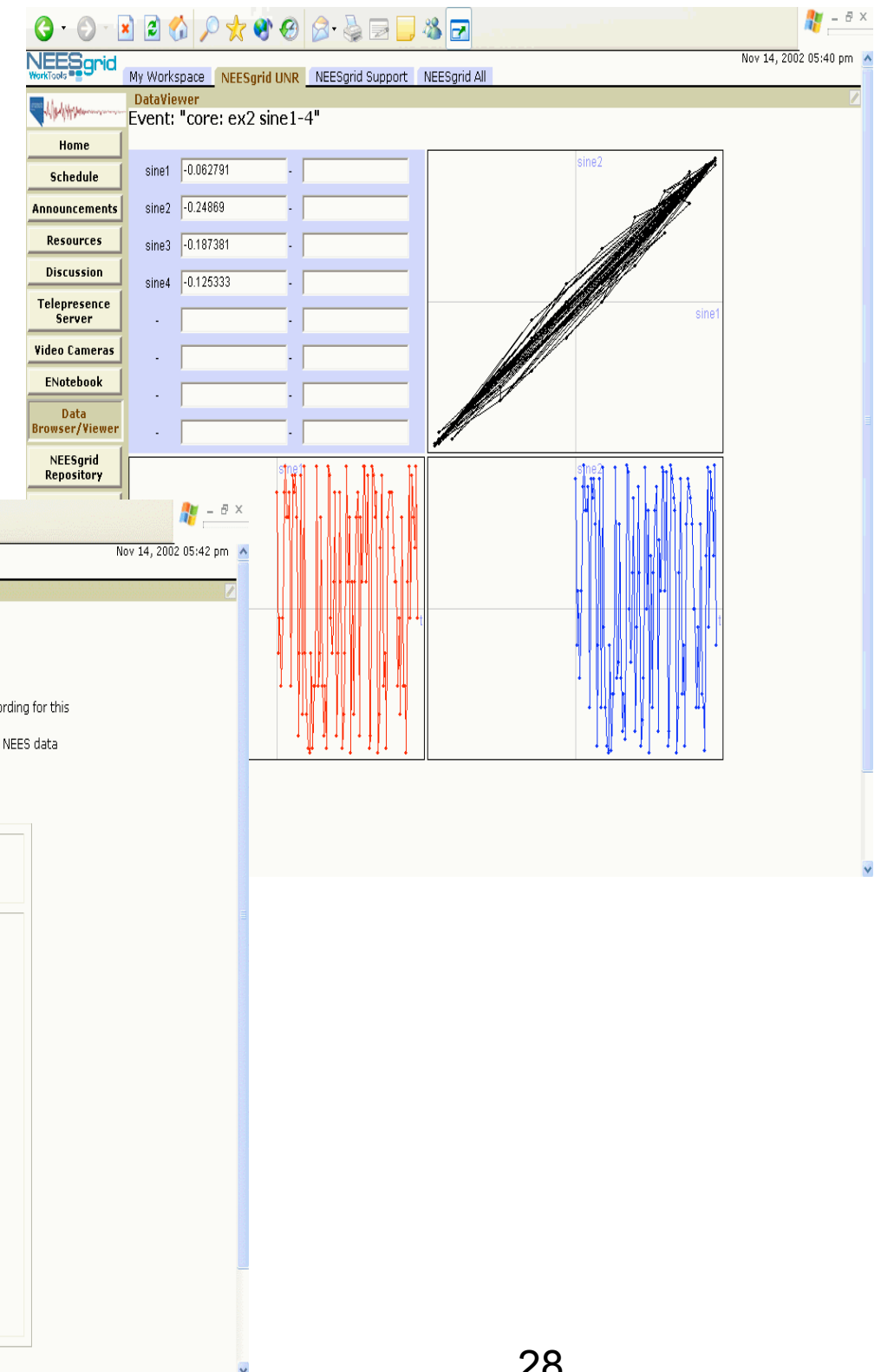
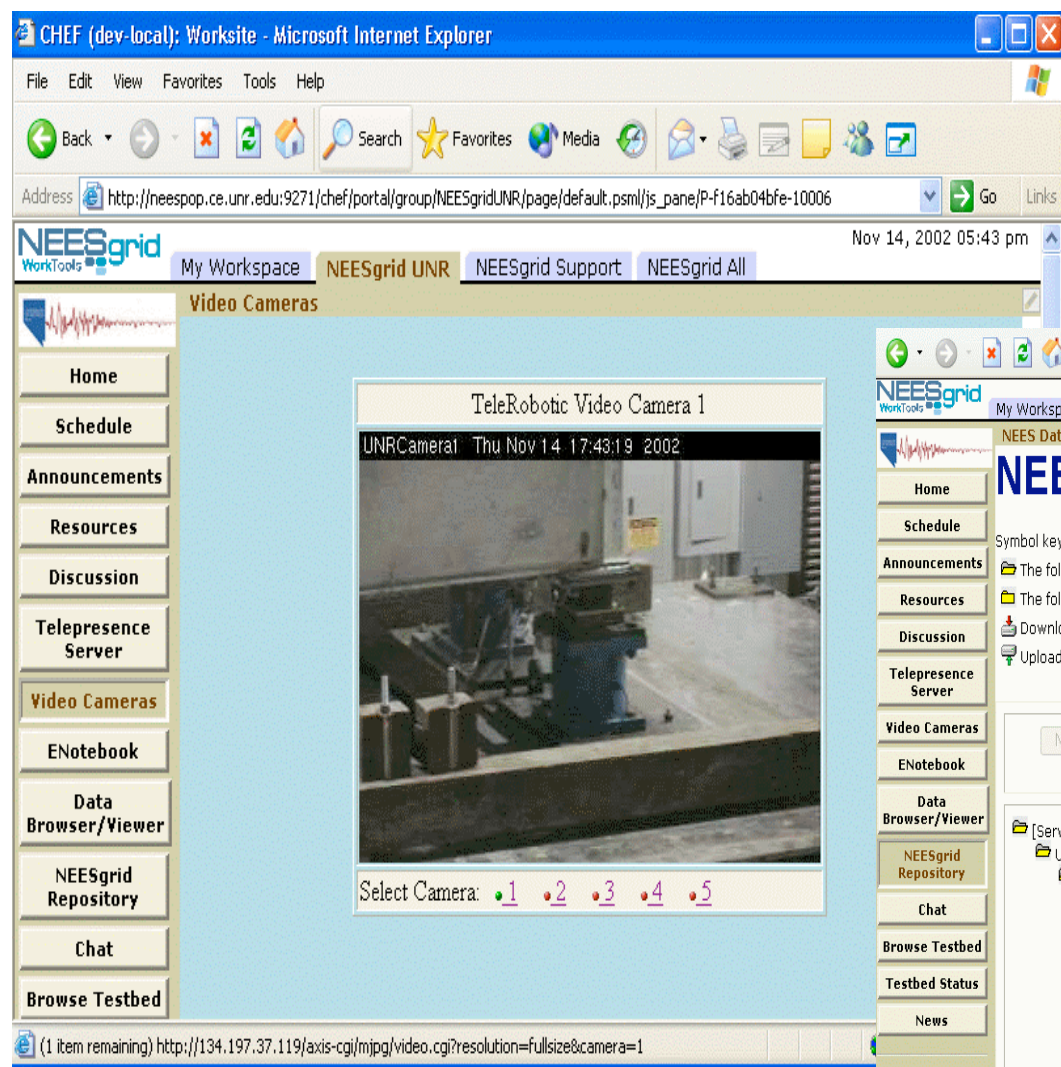
Let's look at a few real example Grid Science Gateways

(about a dozen ... many more
exist!)

These example slides courtesy of D. Gannon

NEESGrid

Realtime access to earthquake
Shake table experiments at remote sites.



NEESgrid

BIRN – Biomedical Information

The screenshot shows the BIRN Portal website. At the top left is the BIRN logo with the text 'BIOMEDICAL INFORMATICS RESEARCH NETWORK'. To the right is a login section with fields for 'Username:' and 'Password:', and a 'login' button. Below the header is a navigation bar with links: 'Portal Home', 'BIRN Website', 'Account Request', 'Style', and 'Help'. The main content area is divided into two columns. The left column has a 'Login Information' section with a 'BIRN Portal Login' form. The form includes a prompt 'Enter your username/password', fields for 'Username:' and 'Password:', and a 'Login' button. Below the form is a list of links: 'Request a BIRN account (must be a BIRN participant)' and 'Email BIRN Portal admins'. The right column has a 'Welcome to the BIRN Portal' section with a paragraph of text and a large graphic titled 'BIRN Portal Biomedical Informatics Research Network' showing a stylized brain and network.

BIRN
BIOMEDICAL INFORMATICS RESEARCH NETWORK

Username:
Password:

[Portal Home](#) [BIRN Website](#) [Account Request](#) [Style](#) [Help](#)

Login Information

BIRN Portal Login

Enter your username/password

Username:
Password:

- [Request](#) a BIRN account (must be a BIRN participant)
- [Email](#) BIRN Portal admins

Portal Requirements

You must have cookies enabled to login to the BIRN Portal, in addition, Javascript is highly recommended but not required.

The latest version of Java will be required to access *some* of the applications.

For optimal browsing please use a [Mozilla](#) based browser.

Older versions of Safari will experience

Welcome to the BIRN Portal

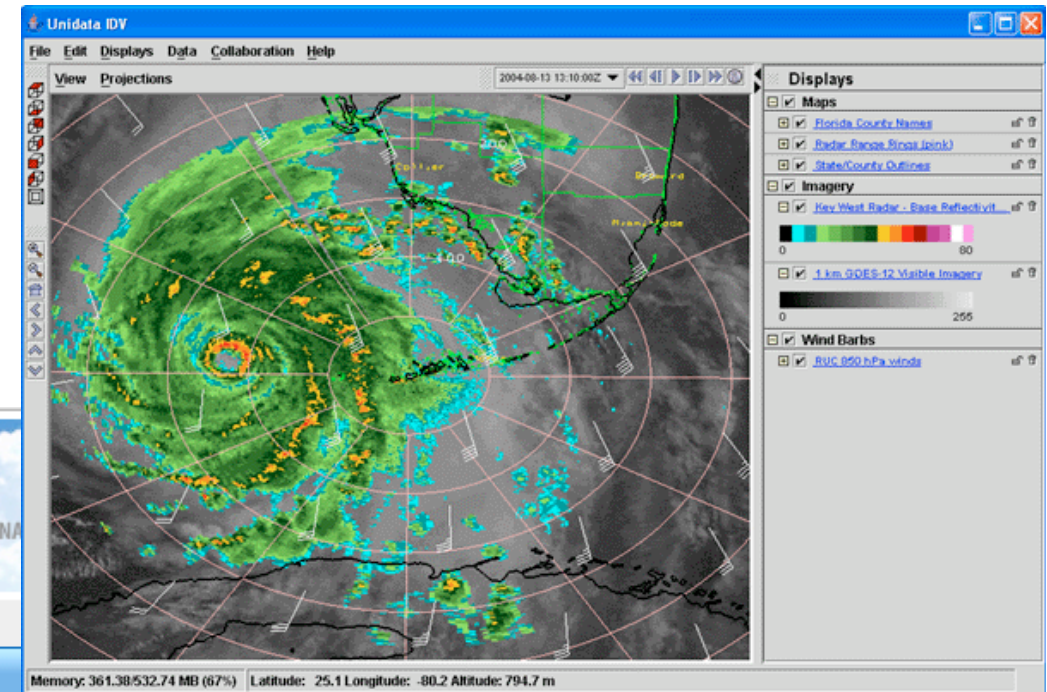
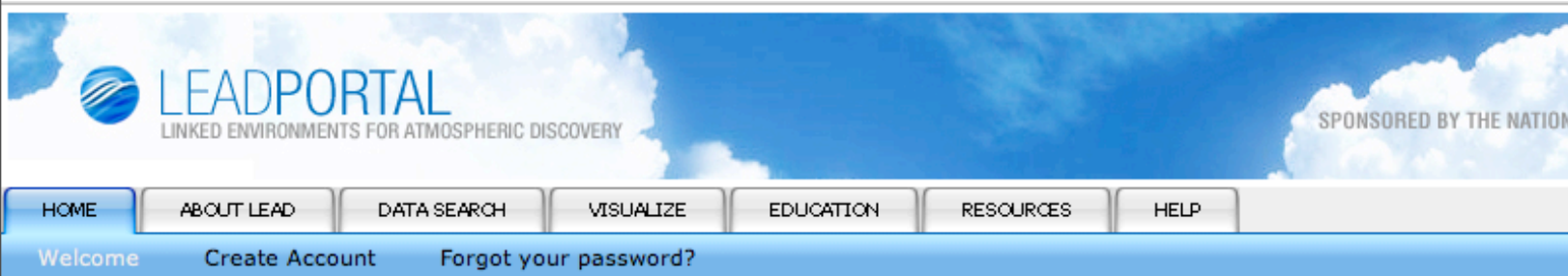
The Biomedical Informatics Research Network (BIRN) Portal provides BIRN members with a single sign on web portal to access data grid files, computation grid resources, and a variety of collaboration tools to facilitate the scientific needs of BIRN researchers. Non-BIRN participants may access the portal through a guest registration.

The graphic features the text 'BIRN Portal' in large, stylized letters, with 'Biomedical Informatics Research Network' underneath. The background is a complex, colorful image of a brain with various data overlays and network connections.

Mesoscale Meteorology

NSF LEAD project - making the tools that are needed to make accurate predictions of tornados and hurricanes.

- Data exploration and Grid workflow



WELCOME TO THE LEAD PORTAL



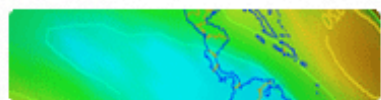
Linked Environments for Atmospheric Discovery (LEAD) makes meteorological data, forecast models, and analysis and visualization tools available to anyone who wants to interactively explore the weather as it evolves. The LEAD Portal brings together all the necessary resources at one convenient access point ... [read more](#)

FEATURES FOR ANYONE INTERESTED IN THE WEATHER

Researchers	With university, government, or industry affiliations	GET FEATURES
Educators	At college and university level, high school, or middle schools	GET FEATURES
Students	At graduate, undergraduate, middle and high school levels	GET FEATURES
Visitors	Newcomers and the curious	GET FEATURES

POPULAR TOOLS

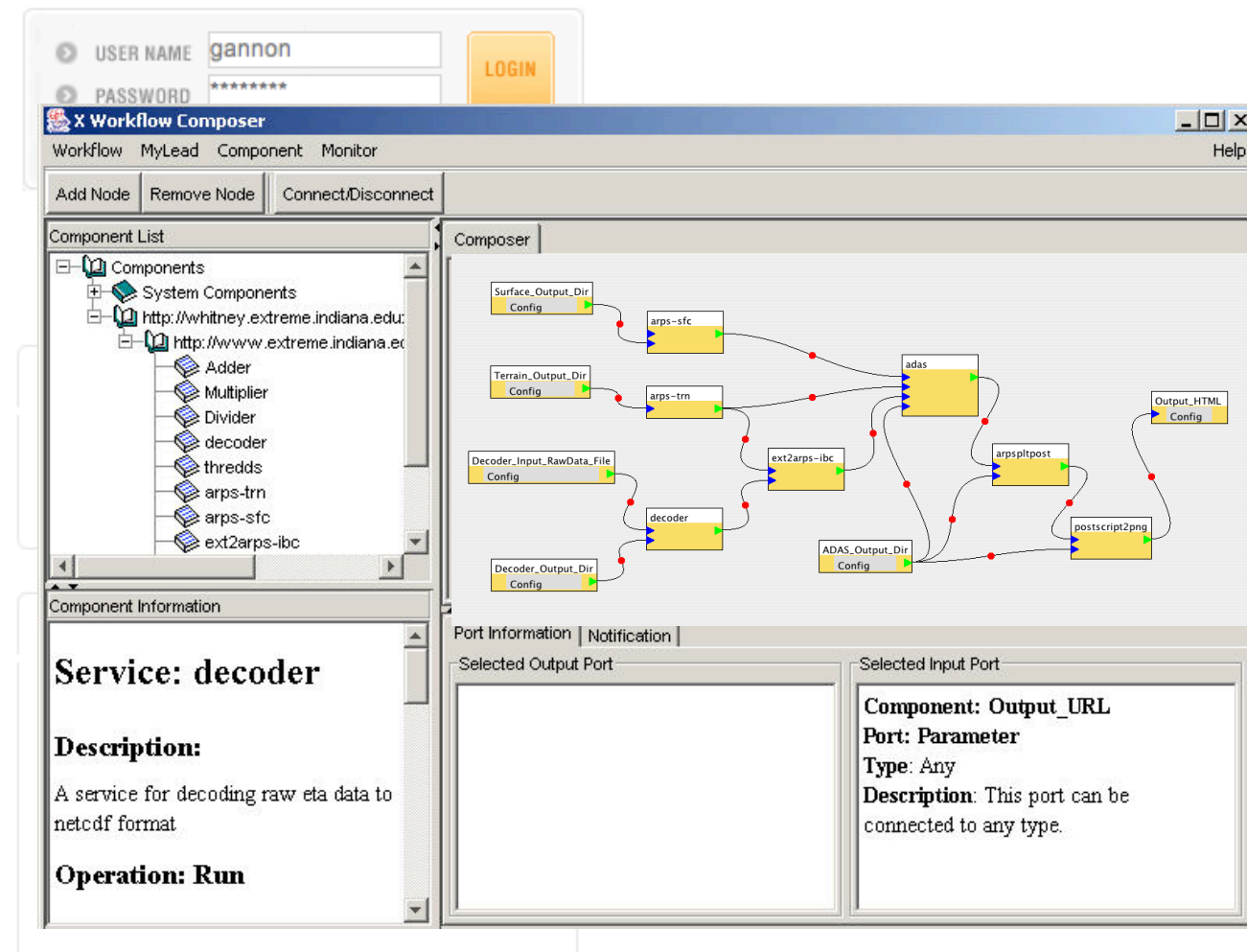
Visualize Weather Data
[Integrated Data Viewer](#) | [MORE >](#)



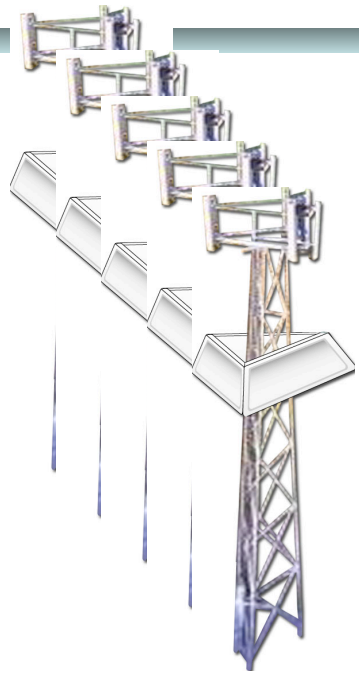
Make a Forecast or Analysis
[Experiment Builder](#) | [MORE >](#)



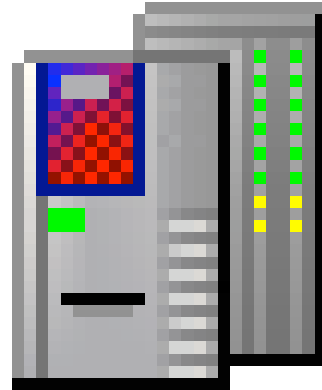
Access Weather Data
[Geographic Region Search](#) | [MORE >](#)



The LEAD Vision: Adaptive Cyberinfrastructure

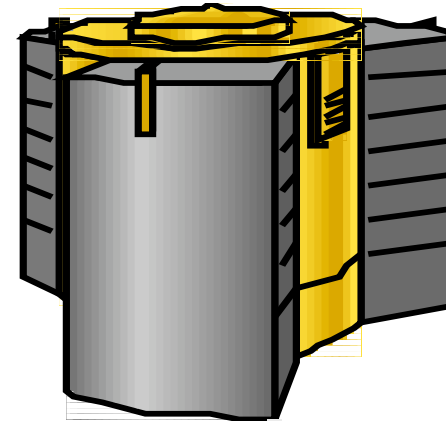


DYNAMIC OBSERVATIONS



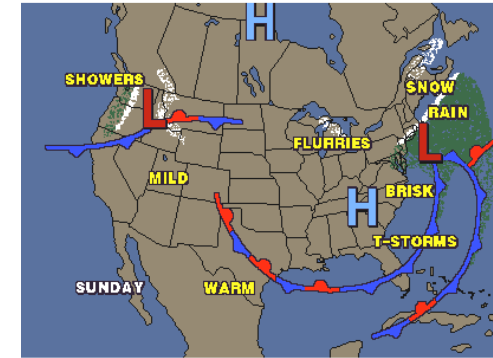
Analysis/Assimilation

Quality Control
Retrieval of Unobserved
Quantities
Creation of Gridded Fields



Prediction/Detection

PCs to Teraflop Systems



**Product Generation,
Display,
Dissemination**



End Users

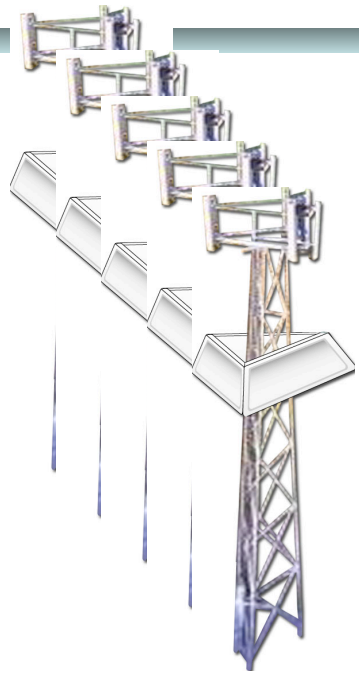
NWS
Private Companies
Students

Models and Algorithms Driving Sensors

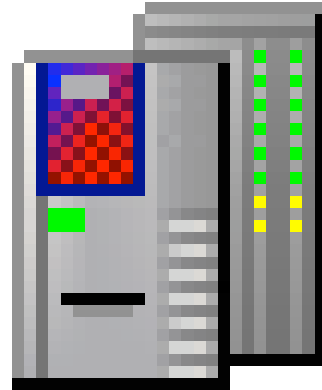
The CS challenge: Build cyberinfrastructure services that provide adaptability, scalability, availability, useability, and real-time response.

From D. Gannon

The LEAD Vision: Adaptive Cyberinfrastructure

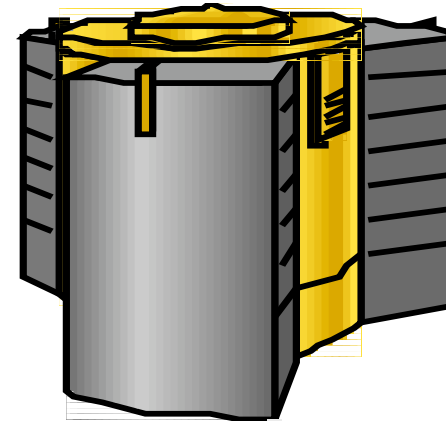


DYNAMIC OBSERVATIONS



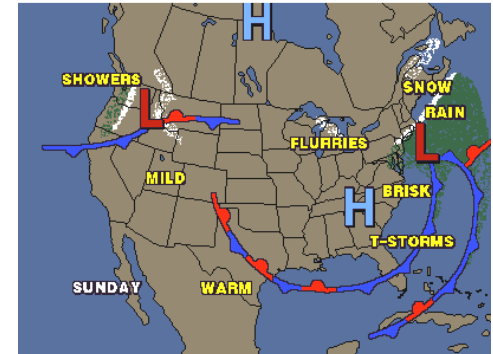
Analysis/Assimilation

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**Product Generation,
Display,
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End Users

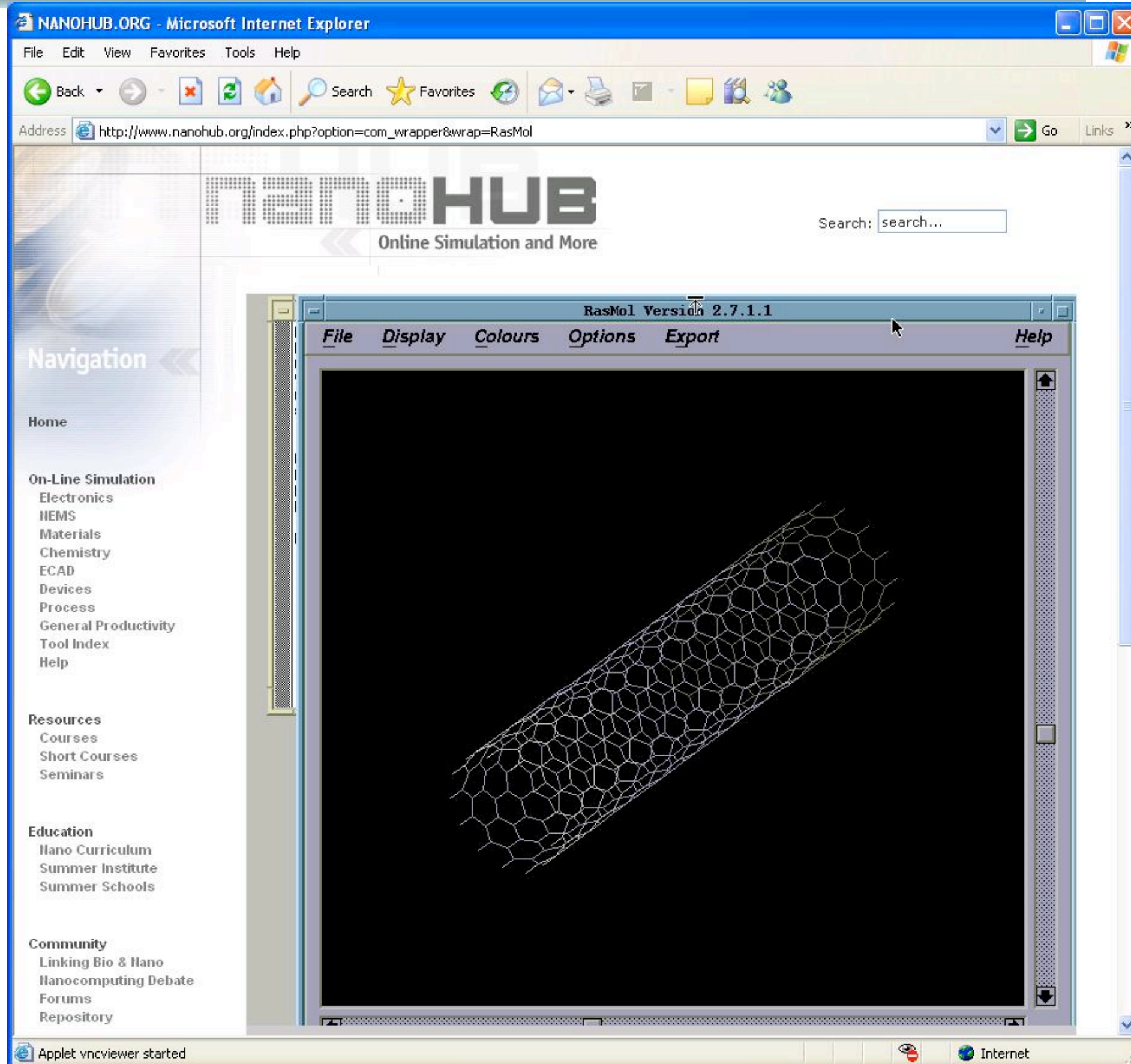
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The CS challenge: Build cyberinfrastructure services that provide adaptability, scalability, availability, useability, and real-time response.

From D. Gannon

Nanohub - nanotechnology



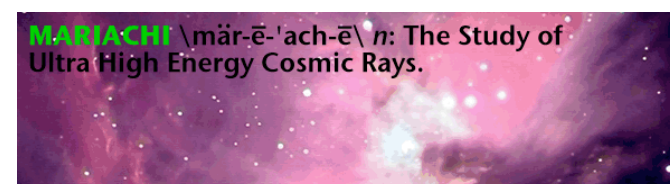
- Learning **supported by** CI. (cyber-enabled learning).
- Workforce development **to create and use** CI for S&E research and education.
- **Broadened participation:** Exploit the new opportunities that cyberinfrastructure brings for ... people who, because of physical capabilities, location, or history, have been excluded from the frontiers of scientific and engineering research and education.
- Explore CI support for **integrated research and education**.



BIOINFORMATICS CI INSTITUTE



EPIC



MARIACHI

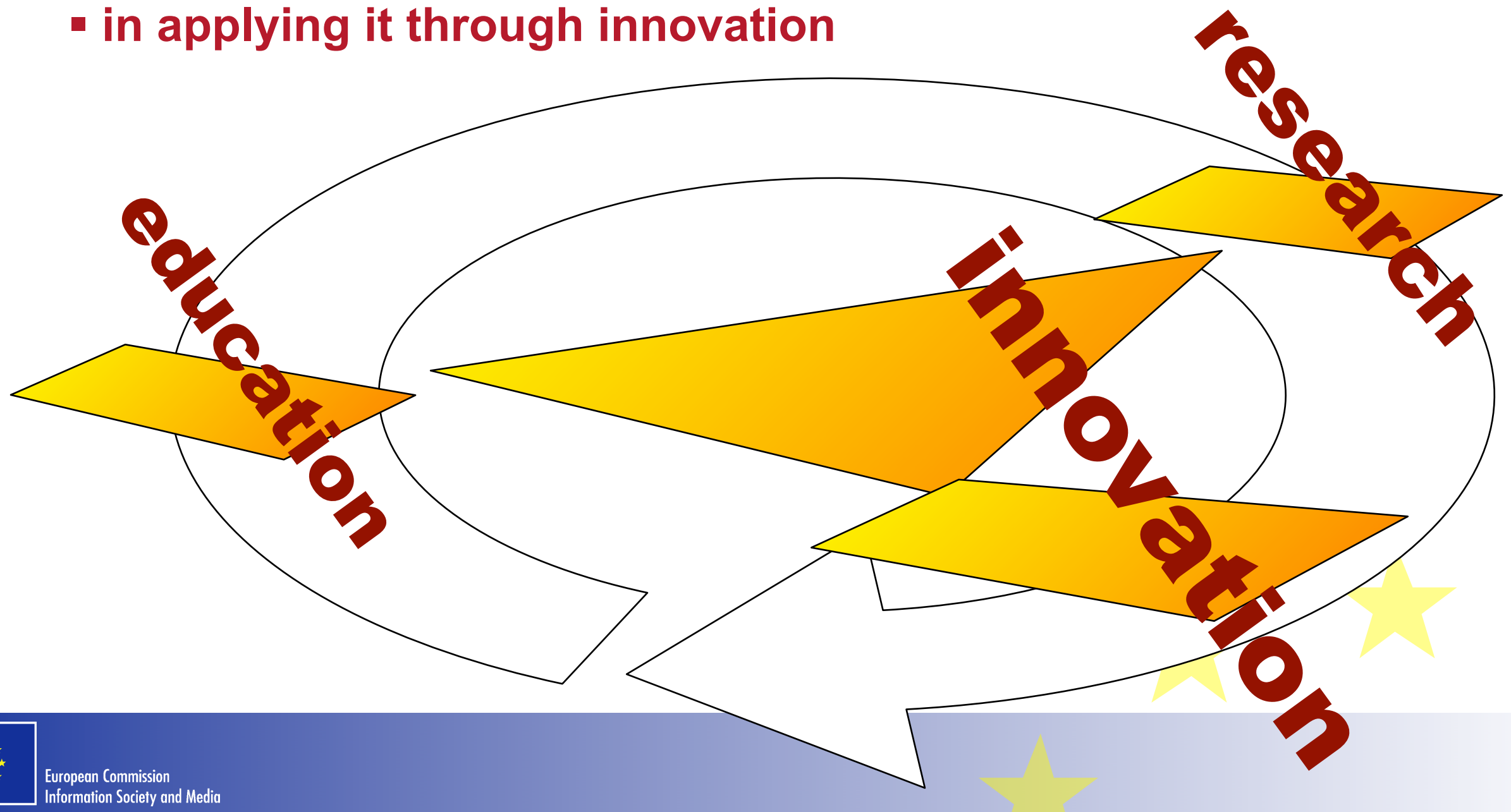


CyberBridges

FP7 - Putting the knowledge triangle at work

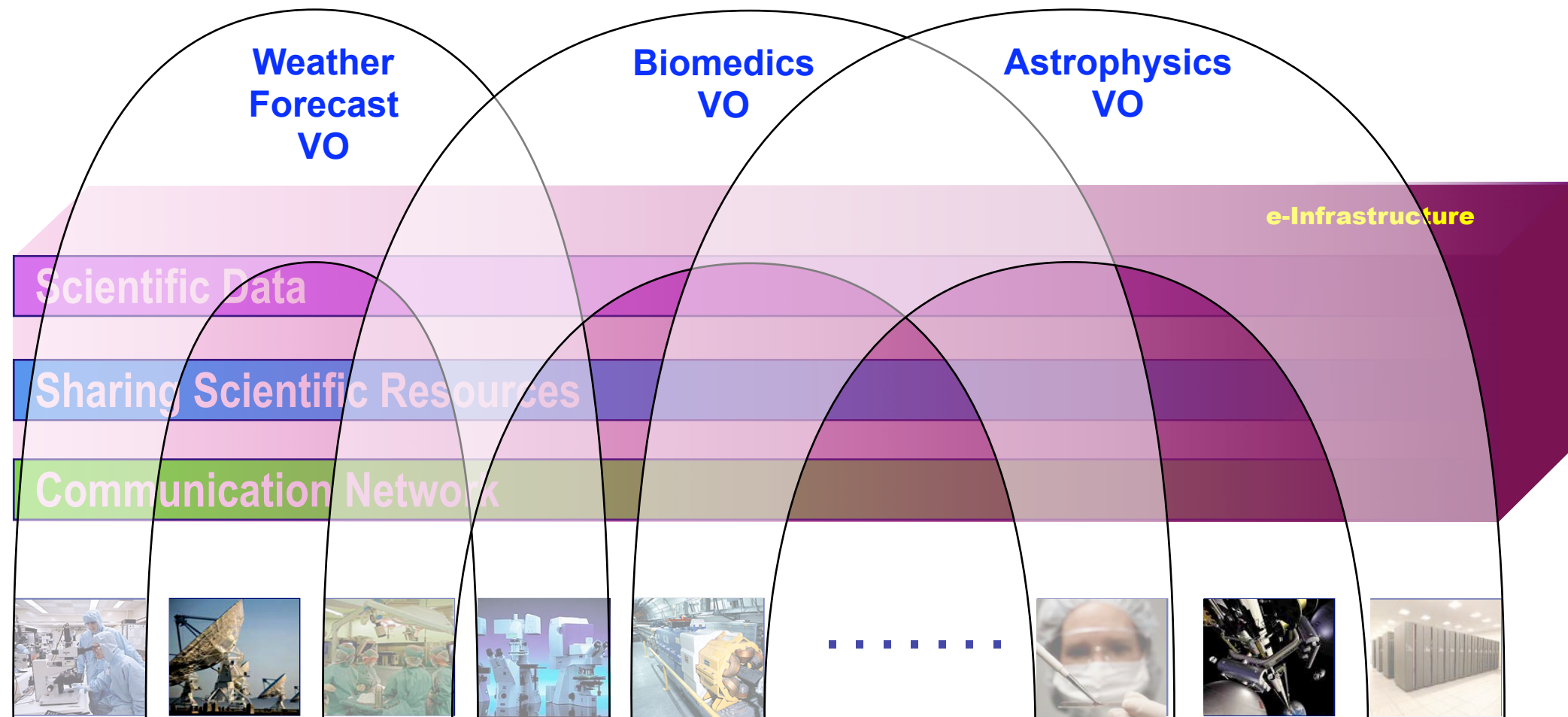
To be a genuinely competitive knowledge economy, Europe must be better

- in producing knowledge through research
- in diffusing it through education
- in applying it through innovation



e-Infrastructures in FP7 - strategy - Virtual Organizations (VO)

Bringing the best brains together
Sharing the best scientific resources

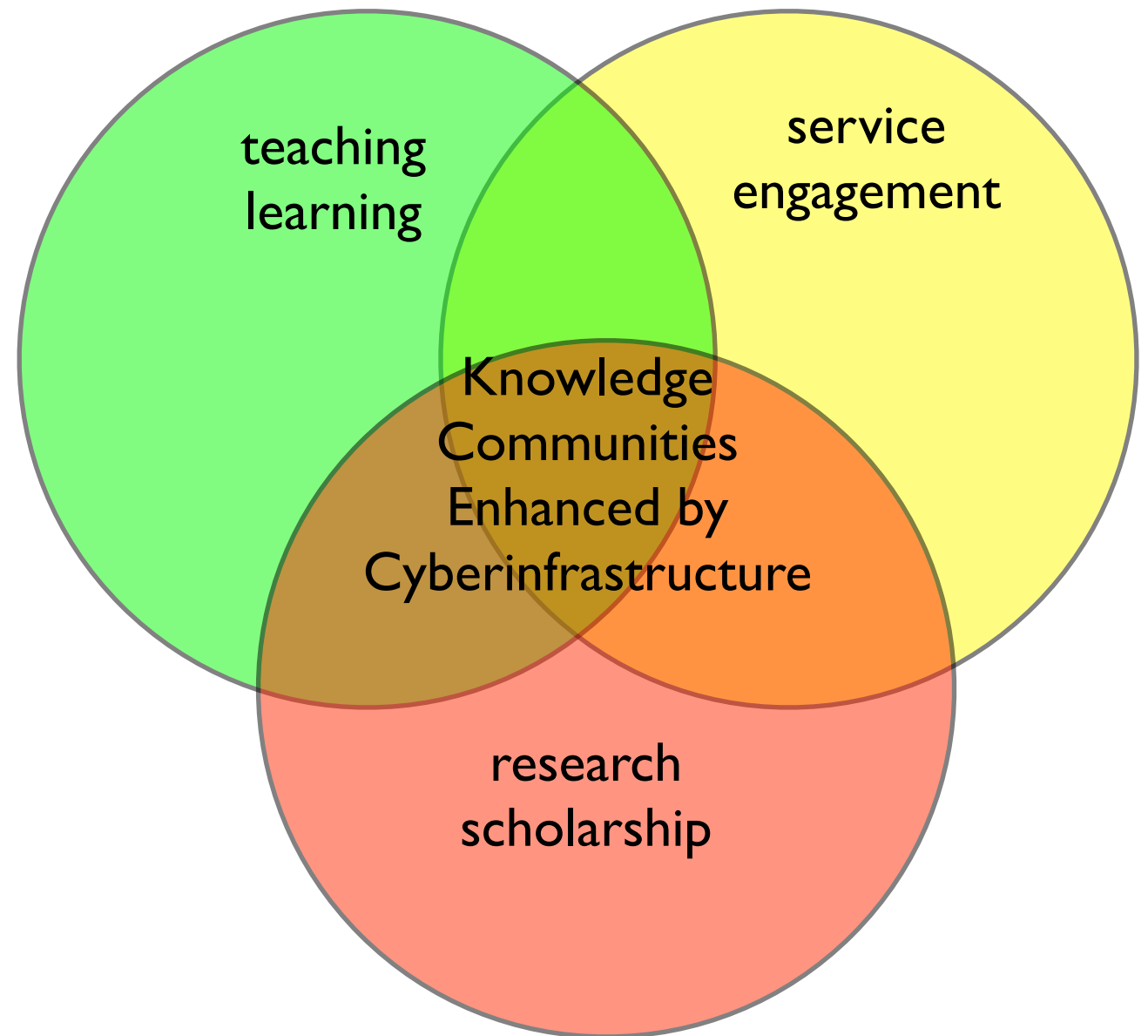


Producing the best science



And while we are at it...

- can we create CI platforms in support of research, learning, and societal engagement in ways that exploit complementarity between them?
 - “Better than being there.”
 - Pasteur’s Quadrant research
 - Ubiquitous learning ecologies



The opportunity is more than networked information. It is about using ICT/CI as an enhancement platform for knowledge-based communities to learn, discover, and engage in more “barrier free” ways.

New Learning and Discovery Ecosystems:

The Meta University

A Personal View

What we are observing is the early emergence of a *Meta University* -- a transcendent, accessible, empowering, dynamic, communally-constructed framework of open materials and platforms on which much of higher education worldwide can be constructed or enhanced.

From Charles M. Vest, President Emeritus of MIT

The Meta University

- Will enable -- not replace -- residential campuses
- Will bring cost efficiencies to institutions through shared development;
- Will be adaptable -- not prescriptive;
- Will serve both teachers and learners;
- Will speed the propagation of high-quality education and scholarship;
- Will build capacity for economic development;
- Will build bridges across cultures and political boundaries; and
- Will be particularly important to the developing world.

From Charles M. Vest, President Emeritus of MIT

Something to ponder.....

Global Needs

Half of the world's population is under 20 years old.

Today, there are over 30 million people who are fully qualified to enter a university, but there is no place available. This number will grow to over 100 million during the next decade.

To meet the staggering global demand for advanced education, a major university would need to be created every week.

“In most of the world, higher education is mired in a crisis of access, cost, and flexibility. The dominant forms of higher education in developed nations—campus based, high cost, limited use of technology—seem ill-suited to addressing global education needs of the billions of young people who will require it in the decades ahead.”

Sir John Daniels

From James J. Duderstadt, President Emeritus, U. of Michigan

Chinese and English on the Go (CHENGO)

乘风汉语
CHENGO CHINESE

Welcome to Chengo Chinese

神奇汉语, 轻松掌握

Home > Useful Links

Login

Username

Password

go

New Register

Why Chengo

Chengo Story

Classroom

Instructor's Manual

Forum

Useful Links

Search in the Website

All

Enter Keywords

go

Institution

Study Resources

Media

Ministry of Education P.R.C 中国教育部

US Department of Education 美国教育部

China National Office for Teaching Chinese as a Foreign Language
国家对外汉语教学领导小组办公室

US-China E-Language Learning System 中美项目工作网站

China Scholarship Council 国家留学网

八达岭长城

Privacy Statement
Disclaimer & Copyright Statement
Feedback



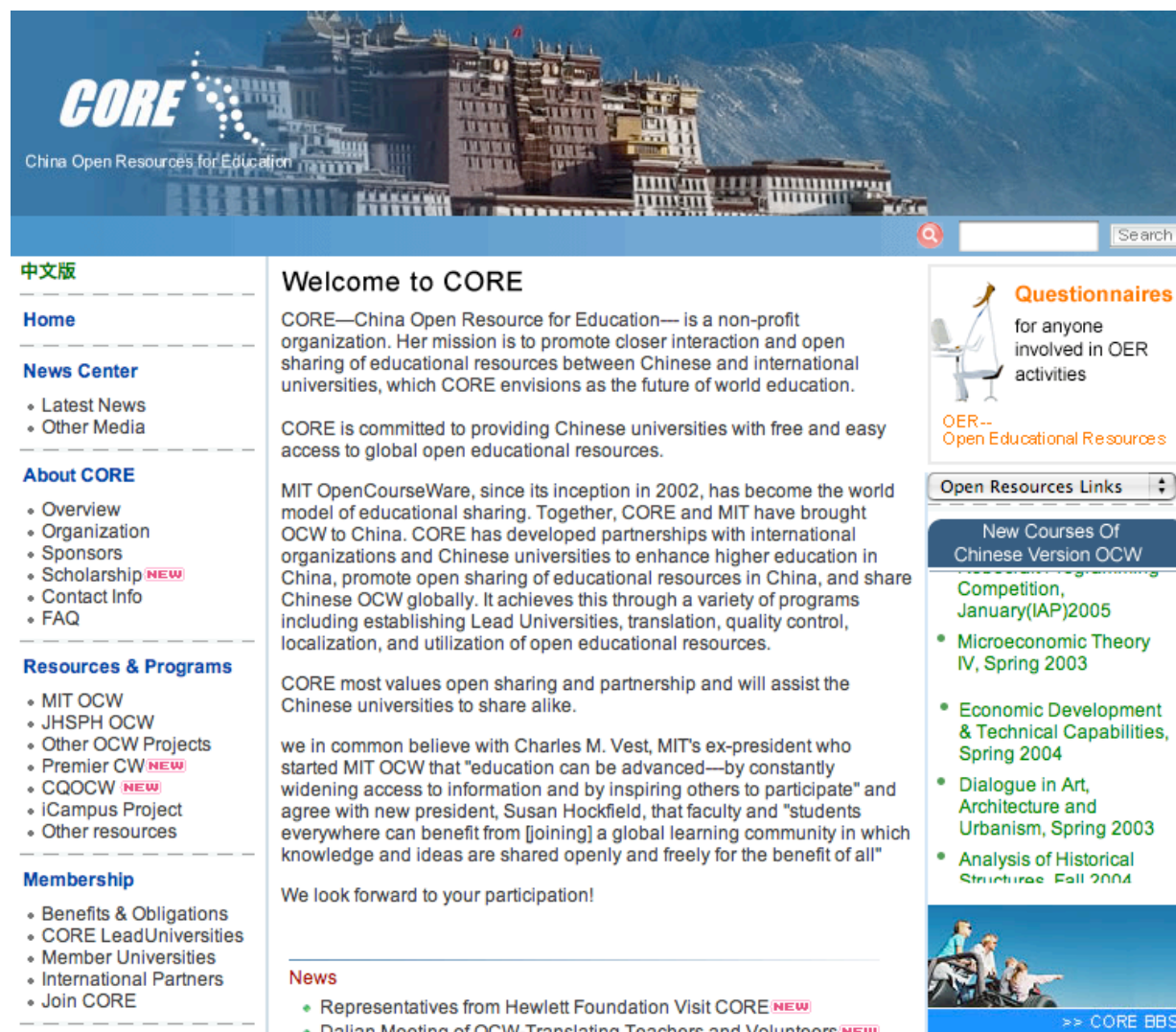
Office of
Cyberinfrastructure

<http://www.elanguage.cn/>

D. E. Atkins



OCW & China Open Resources for Education (CORE)



CORE
China Open Resources for Education

中文版

Home

News Center

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- Other Media

About CORE

- Overview
- Organization
- Sponsors
- Scholarship **NEW**
- Contact Info
- FAQ

Resources & Programs

- MIT OCW
- JHSPH OCW
- Other OCW Projects
- Premier CW **NEW**
- CQOCW **NEW**
- iCampus Project
- Other resources

Membership

- Benefits & Obligations
- CORE Lead Universities
- Member Universities
- International Partners
- Join CORE

Welcome to CORE

CORE—China Open Resource for Education—is a non-profit organization. Her mission is to promote closer interaction and open sharing of educational resources between Chinese and international universities, which CORE envisions as the future of world education.

CORE is committed to providing Chinese universities with free and easy access to global open educational resources.

MIT OpenCourseWare, since its inception in 2002, has become the world model of educational sharing. Together, CORE and MIT have brought OCW to China. CORE has developed partnerships with international organizations and Chinese universities to enhance higher education in China, promote open sharing of educational resources in China, and share Chinese OCW globally. It achieves this through a variety of programs including establishing Lead Universities, translation, quality control, localization, and utilization of open educational resources.

CORE most values open sharing and partnership and will assist the Chinese universities to share alike.

we in common believe with Charles M. Vest, MIT's ex-president who started MIT OCW that "education can be advanced—by constantly widening access to information and by inspiring others to participate" and agree with new president, Susan Hockfield, that faculty and "students everywhere can benefit from [joining] a global learning community in which knowledge and ideas are shared openly and freely for the benefit of all"

We look forward to your participation!

News

- Representatives from Hewlett Foundation Visit CORE **NEW**
- Dalian Meeting of OCW Translating Teachers and Volunteers **NEW**

Questionnaires for anyone involved in OER activities

OER-- Open Educational Resources

Open Resources Links

New Courses Of Chinese Version OCW

Competition, January(IAP)2005

- Microeconomic Theory IV, Spring 2003
- Economic Development & Technical Capabilities, Spring 2004
- Dialogue in Art, Architecture and Urbanism, Spring 2003
- Analysis of Historical Structures, Fall 2004

>> CORE BBS



CORE
China Open Resources for Education

English

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- 约翰霍普金斯
- 塔夫茨大学
- 索非亚开放课程
- 中国精品课程
- 其他开放课程
- 其它学习资源

会员与奖学金

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新闻中心 最新动态

<<新闻中心<<首页

CORE代表参加信息社会世界峰会 —CORE OCW模式受到与会者高度赞赏

根据联合国大会第56/183号决议，经过长期的筹备工作，信息社会世界峰会第二阶段会议（会议背景）于2005年11月16日上午在突尼斯首都隆重开幕，首脑会议的目标是“建设一个以人为本、具有包容性和面向发展的信息社会。在这样一个社会中，人人可以创造、获取、使用 and 分享信息和知识，使个人、社区和各国人民均能充分发挥各自的潜力，促进实现可持续发展并提高生活质量。”该会议由联合国指定由国际电信联盟（ITU）组织，包括中国国务院副总理黄菊在内的近50位国家元首和政府首脑、175个国家的18000多名代表参加了这次峰会。

在为期3天的会议期间，与会代表主要讨论为缩小富国和穷国间的“数字鸿沟”筹措资金和全球因特网管理等问题（会议主题列表及相关讨论）。峰会由一次组织工作会议（会议视频）、一场开幕式（会议视频）、八次全体会议（会议视频）以及圆桌会议和高级专题讨论会议组成。（会议日程）

突尼斯总统本·阿里在开幕式上强调加快建设信息社会对人类未来发展的重要性，并希望此次大会能真正解决信息社会建设进程中遇到的实际问题。他认为，信息社会的建设需要确立全球性的道德标准，以防止因滥用信息技术而产生的负面影响，同时应避免危及世界文化的多样性。（发言原文）

联合国秘书长安南在开幕式上发表讲话，呼吁在信息社会建设进程中加强国际合作，并对广大发展中国家提供更多帮助。他指出，目前信息社会建设中所遇到的问题多是政治性的，妥善解决这些问题将有助于缩小富国与穷国间现存的“数字鸿沟”，关键是有关各方应尽快采取具体行动。他表示联合国将在这方面发挥其应有作用，并通过利用先进的信息和通信技术，给予人民他们所需的工具和技术，并提供有效使用这些工具和技术的知识和训练，以扩大、建立、助长和解放人类潜能，给予人民通过媒介和跨越鸿沟寻求、取得和分享信息和思想的权利，推动千年发展目标的实现。（发言原文）



Office of
Cyberinfrastructure

D. E. Atkins



New Opportunities

*“Cyberinfrastructure-enhanced knowledge communities offer the potential for enabling a new wave of global-scale collaboration across multiple disciplines, geography, and institutions. It could empower a revolution in **what** science explores, **how** it is done, and **who** participates.*

*Realizing this potential will, however, also required **a new wave of commitment to collaboration** between the complex array of stakeholders necessary to create, deploy, sustain, and apply cyberinfrastructure in transformative ways.*

Cyberinfrastructure both enables and requires a new wave of collaboration.”



D. E. Atkins, Keynote for EDUCAUSE Australasia, Auckland, NZ, April 5-8, 2005

Office of
Cyberinfrastructure

D. E. Atkins



- *and Networks are the fundamental platform need to remove barriers of time and distance. Thanks for all you are doing. 謝謝*
- 謝謝您做着的所有
- Questions and Discussion
問題

